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Politics this week

Sep 4th 2003
From The Economist print edition

After the bomb

AFP

Ayatollah Muhammad Baqer al-Hakim, who was killed along with 100 others by a car bomb at Najaf's holiest site, was buried in the city after a three-day funeral procession from Baghdad. Many of the half million or so mourners blamed the Americans for failing to protect him, and Saddam Hussein loyalists for the murder. Arab television stations broadcast a tape, said to be by Saddam, denying involvement.

See article: Iraq after Ayatollah Hakim's murder

The United States introduced a resolution asking the United Nations to approve the creation of a **multinational force** in Iraq. It also calls on the Iraqi Governing Council to submit a plan for a constitution and for elections. Donor countries and agencies met in Brussels to assess Iraq's economic needs: they want Iraq's American administrator to accept an independent trust fund to channel aid.

See article: Sharing the burden

An Israeli commission of inquiry criticised both the police and political leaders for the killing of 13 **Israeli Arabs** during protests in October 2000. It recommended that at least one police commander be dismissed but did not call for any severe action against the politicians involved.

See article: Road to nowhere

The **Palestinian parliament** met in a bid to resolve the conflict between the president, Yasser Arafat, and the prime minister, Mahmoud Abbas.

See article: The Palestinian Authority under strain

Shots were fired at the British embassy in Tehran. This followed Britain's arrest of a former **Iranian** diplomat whose extradition is being sought by Argentina in connection with a bombing in 1994.

A French-led European force handed over peacekeeping duties in Bunia, in eastern **Congo**, to a UN force. Bunia is now relatively peaceful but the surrounding area is not.

See article: Peacekeeping in eastern Congo

South Africa's Human Rights Commission published a report on **South African farms** that revealed grim conditions for black labourers, and an increase in the murders of white farmers.

Sinking sub

Reuters

A decommissioned **Russian** nuclear submarine sank as it was being towed to a scrapyard in the Barents Sea, drowning all but one of ten submariners on board.

See article: Russia's failure to revamp its rusting navy

By the official deadline of September 1st for Russian soldiers and **Chechen** rebels to take advantage of an amnesty announced in June, only 150 rebels had turned themselves in—along with 220 Russian soldiers wanting to shake off war-crimes allegations.

The **Kurdistan Workers' Party** (PKK), which now also calls itself KADEK, said that its four-year ceasefire with Turkey was becoming unsustainable, raising the prospect of a resumption of guerrilla war.

A row between **Italy's** prime minister, Silvio Berlusconi, and Piero Fassino, leader of the main opposition party, the Democrats of the Left, got nastier when Mr Berlusconi threatened to sue his chief opponent. Why? Mr Fassino had accused him and his government of masterminding a plan to smear the then leaders of the left-wing government over the purchase in 1997 of Serbia Telekom by Telecom Italia.

Gerhard Schröder, **Germany's** chancellor, let it be known that he and his Green Party foreign minister, Joschka Fischer, would stand again in the next general election in 2006. His announcement was tempered by reports that he had told a meeting of Social Democratic MPs that the Greens' political behaviour “makes him want to puke”.

Germany's most powerful trade union, IG Metall, elected a non-reformer, Jürgen Peters, as its chairman, but made the more modern-minded Berthold Huber his deputy.

See article: Germany's ever weaker unions

At the behest of Spain's conservative prime minister, José María Aznar, one of his deputy prime ministers, **Mariano Rajoy**, was chosen to head the ruling People's Party and to stand for the prime-ministership in the next general election, expected in March.

See article: Spain's would-be next conservative prime minister

Light punishment

Abu Bakar Basyir, a radical Islamic cleric, was found guilty by an **Indonesian** court of subversion, but acquitted on the graver charge of treason as the leader of Jemaah Islamiah, accused of the Bali bombing and of links to al-Qaeda. He was sentenced to four years in prison. Australia, which lost many citizens in the bombing, said the sentence was too light.

See article: Indonesian terror

Three challengers entered the contest to replace Junichiro Koizumi as president of the Liberal Democratic Party, and so prime minister of **Japan**. The election takes place on September 20th.

See article: Japan's leadership battle

Indian soldiers killed a top Kashmiri militant, Ghazi Baba, in Srinagar, prompting violence in which some 30 people died. The government also announced arrests in the investigation of last week's bombings in Mumbai. Pakistan said it had arrested four army officers for their alleged links to terrorist groups.

See article: Terrorism in India

Dangerous driving

South Dakota's lone congressman, Bill Janklow, was charged with second-degree manslaughter. Mr Janklow, a former Republican governor of the state for 16 years, is accused of speeding and failing to stop at a sign before killing a motorcyclist.

Tom Ridge, the **homeland security** secretary, announced plans to deploy an extra 5,000 federal air-marshals on commercial airliners. Congress had criticised plans to cut the air-marshal budget by 20%.

A federal appeals court commuted the sentences of 111 prisoners on **death row** in Arizona, Idaho and Montana where the judge, not the jury, makes the death-penalty decision. Meanwhile, Paul Hill, an anti-abortion extremist who killed a doctor and his bodyguard outside an abortion clinic, was executed in Florida.

See article: A possible death row reprieve

California held its first televised debate for candidates in the recall election. The nationally broadcast event took place without a contribution from Arnold Schwarzenegger.

Around 250,000 bikers rumbled into Milwaukee, Wisconsin, to celebrate the 100th anniversary of **Harley-Davidson** motorcycles.

AP

In an impressively productive week, **Brazil's** lower house approved social-security reform and a tax reform bill.

Vicente Fox, **Mexico's** president, attempted to tighten his grip on government by replacing two technocrats in his cabinet with experienced politicians from his own party.

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Business this week

Sep 4th 2003
From The Economist print edition

Vivendi's NBC deal

Vivendi Universal's protracted auction of its American entertainment assets ended after the French media giant chose to enter exclusive talks with its preferred suitor, NBC. It was chosen over the only other remaining bidder, a consortium led by Edgar Bronfman, himself once owner of many of the same assets.

See article: A media giant is born

In America, a federal appeals court unexpectedly blocked the introduction of controversial new **media-ownership rules** the day before they were due to go into effect. The decision puts on hold a sweeping deregulation which offered big media companies more freedom to expand.

France Telecom offered *euro*7 billion ($7.6 billion) for the 13.6% that it does not already own of **Orange**, Europe's third-largest mobile-phone firm. The French state-controlled phone company floated Orange amid much ballyhoo in 2001.

Pechiney, a French aluminium maker, rejected an improved offer from **Alcan**, a Canadian rival. Pechiney is pressing for more than the *euro*4 billion ($4.3 billion) on offer, though falling prices, mergers between other rivals and the lack of another likely suitor may force it to accept less than it wants.

Up against the Wall Street

Eliot Spitzer opened the latest front in his battle with Wall Street. New York's attorney-general revealed that he had begun an investigation into illegal trading practices at four big mutual funds that had cost customers billions of dollars. Canary Capital Partners, a hedge fund, has already agreed to pay $40m to settle these accusations and to help with investigations into other miscreants.

See article: Toxic finance

America's Securities and Exchange Commission stepped into the row over Richard Grasso's bloated pay package for his services as head of the **New York Stock Exchange**. The SEC's chairman, William Donaldson, less handsomely remunerated when he was boss of the NYSE, has demanded details of the $140m package saying that it invited questions over how the exchange is run.

See article: That pay packet

Crédit Lyonnais and a French government agency are reportedly ready to settle a long-running case brought by American federal prosecutors against the French bank regarding its purchase and resale between 1991 and 1995 of Executive Life, a Californian insurer. The settlement will involve the payment of huge fines.

See article: An old scandal is far from over

MCI's hopes of emerging from Chapter 11 bankruptcy suffered another blow. **AT&T** filed a lawsuit against the rival phone company formerly known as WorldCom alleging that it illegally routed calls through Canada. MCI deny the charges.

Collins Stewart Tullett, a British stockbroker, threatened to sue the *Financial Times* for £128m

($201m), after the newspaper repeated another paper's accusations of irregular share dealing. The claims were made by a former analyst at the firm, now suing for wrongful dismissal. The *FT* is standing by its story.

Tasteful advertising?

McDonald's launched its first-ever worldwide advertising campaign. The fast-food chain hopes to win back diners with “relevant, hip, energetic and powerful” ads and a slogan: “I'm lovin' it”. Ronald McDonald, the burger firm's clown mascot, will be promoted to the post of “chief happiness officer”; Justin Timberlake, a pop star, will sing in praise of the company's products.

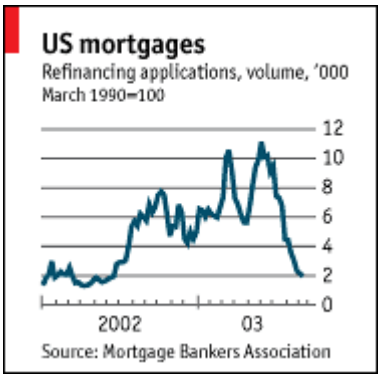
Heinz tasted some success. The American food firm said that profits had more than doubled in the latest quarter compared with a year ago to $214m. It has spun off less-successful ventures to concentrate on its range of ketchups and an enhanced delivery system, the EZ-squeeze bottle.

Caremark Rx agreed to pay $6 billion for a rival American drug-benefits manager, **AdvancePCS**. This unites two firms in an industry now comprising just three large providers of a service that negotiates prices between big drug firms and health insurers.

Snow falls on China

John Snow's commitment to a **strong dollar** is questionable but America's treasury secretary is keen on a strong yuan. On a visit to China he urged a revaluation of the country's currency. But Mr Snow refused to criticise Japan for spending heavily to keep the yen down; it apparently intervened again this week to stop the currency rising.

As mortgage rates have risen, American **mortgage refinancings** have fallen to more than 80% below their peak in May. Earlier this year, low interest rates encouraged households to take out bigger loans against the rising value of their homes, giving them extra cash to spend. The slump could now squeeze spending.



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The Bush presidency

The hard road ahead

Sep 4th 2003
From The Economist print edition

George Bush is looking vulnerable. What can he do about it?

Get article background

SELDOM has a presidency seen so many changes of fortune. George Bush came to the White House as the “accidental president”, the victor by the narrowest of margins in a disputed election. But in his first 100 days he proceeded to govern as a radical conservative, pushing through an enormous tax cut and education reform at home, and dispensing with the Kyoto protocol, the anti-ballistic missile treaty and much else abroad. The rightward surge of the “Toxic Texan” seemed to stall when the defection of a moderate Republican senator, Jim Jeffords, handed the Senate to the Democrats. Two years ago, on the morning of September 11th, Mr Bush was to be found engaged in one of the classic pastimes of a low-drive president, reading to schoolchildren in Florida.

In the wake of the terrorist attacks, America and the world rallied around Mr Bush. Once again he proved to be a much more radical and divisive figure than many expected. Brandishing new theories of pre-emptive military force, he showed an intent not just to eradicate America's enemies but to refashion the Middle East. The Iraq war aroused fears in Europe that the accidental president had become an imperial one. Meanwhile, at home, Mr Bush exploited his sky-high approval ratings to push through yet more tax cuts and to engineer a dazzling success in last year's mid-term elections. The talk in the spring was that Mr Bush had ushered in a new period of Republican supremacy at all levels of government.

Now, suddenly, the wheel seems to be turning again. Amidst worries about the deepening quagmire in Iraq and a persistently jobless recovery, Mr Bush's approval ratings have sagged to their level of two years ago (see article). In recent polls, a majority of Americans have said they would prefer to see somebody else in the White House. The Democratic presidential candidates are up and running, suddenly confident that the imperial president will actually be a one-term president, just as his father was.

Mr Bush is probably in better shape than he appears—and not just because there are 422 days to the election. He will go into that contest with more money than ever and with the firm support of conservative America, something his father never had. Yet his hold on the White House will continue to be in doubt as long as he fails to get results in two areas: Iraq and the economy. In both cases, he would do well to reassess his policies. The two issues, different as they may be, betray something of a pattern: an initial commitment to bold solutions, severely undermined by reluctance to follow through.

Desert sands

This newspaper was an adamant supporter of the Iraq war. Mr Bush's presentation of the case for that war was by no means perfect: for instance, he exaggerated the link between Saddam Hussein and al-Qaeda. But to our mind his *casus belli* still stands, despite the failure so far to find weapons of mass destruction. After 12 years of intransigence at the United Nations, it was right to call Saddam's bluff, even if bluff is all it turns out to have been.

Saddam's removal is an enormous prize. Mr Bush's repeated promises to rebuild Iraq were welcome too—but, as in Afghanistan, there has been a gap between what America has pledged and what it is doing. The current mess stems from the Pentagon's insistence that the United States should run post-war Iraq, as it ran the war, on its own (with minor help from one or two loyal allies) and with a relatively small army trained to wage war, not rebuild countries.

This notion was always fanciful. Now the full peril of doing Iraq on the cheap has been underlined by two ghastly atrocities: the attack on the United Nations building in Baghdad, which has driven most international relief agencies, including the UN, out of Iraq; and the Najaf bomb, which last week killed Ayatollah Muhammad Baqer al-Hakim along with 100 or so others, further alienating Iraq's majority Shias.

The biggest part of the answer is simple enough. America needs to commit more troops and particularly more money to Iraq. Why on earth can't the world's richest country ensure that Baghdad has water and electricity? Is it really good enough that it will take five years to train Iraqi policemen? Committing more resources to Iraq is not “mission creep”. The gamble that the Pentagon could transform peacekeeping as it has transformed warfare, and do it with fewer troops, has failed. America must either send more troops of its own, or look for outside help. Mr Bush now appears to agree—hence his renewed if belated overtures to the UN (see article).

On second thoughts

Anybody who argues for bringing in more outside help must admit that the UN cannot solve everything; the ghastly bomb in Baghdad made that clear. But America badly needs to make the foreigners in Iraq seem less like an army of occupation and more like something akin to an aid mission. It would have been better if Mr Bush had managed to persuade his truculent allies to “multinationalise” the rebuilding of Iraq much earlier. He is right to resume those efforts now, even if this means yielding a little power in the process, and he must ensure that the efforts succeed.

The proposal being debated as *The Economist* went to press is for America's troops to be augmented by a UN-blessed multinational force led by an American commander. At the same time, the Iraqi Governing Council would be asked to submit to the UN a plan for a new constitution and elections. This part is crucial. For all its faults, the UN is well experienced in helping “post-conflict countries” to reform their systems of justice and governance, and move towards democracy. The current American-appointed council lacks both authority and political legitimacy. Iraq will be properly secure only when its government is run by Iraqi politicians and its streets are policed by Iraqi policemen.

More money for Iraq will make Mr Bush nervous. The economy still represents a bigger challenge to his hopes of re-election than Iraq. It confronts the administration with two sets of problems. First, the recovery is failing even now to expand employment. Second, the government's finances are in disarray. The problem is, greater outlays on post-war reconstruction add to Mr Bush's fiscal difficulties.

So far as the recovery is concerned, the president has no choice but to be patient. The deficit forbids further tax cuts and, with interest rates at 1%, the Federal Reserve has little room to ease monetary policy any more. Most of the danger for Mr Bush will come if he tries too hard. In particular, he needs to renounce the lure of protectionism, which he succumbed to 18 months ago when he brought in steel tariffs in a craven attempt to shore up votes in rust-belt states.

When it comes to public finance, the president is more culpable. It makes sense to run a deficit in a slump; and it also makes sense to cut taxes, particularly if you try to move the burden from investment to consumption. But Mr Bush has failed to curb public spending. And he has done virtually nothing to prepare the government for the longer-term problem of the retiring generation of baby-boomers. Promoting the privatisation of Social Security as part of his next presidential campaign would be a step in the right direction; but a firmer message could be sent earlier by vetoing two wasteful bills soon likely to

emerge from Congress, a pretence at Medicare reform and a pork-laden energy bill.

The bold and the dull

A strange symmetry exists between Mr Bush's challenges at home and abroad. In both cases he took a brave, decisive step—by invading Iraq in the first and by cutting taxes in the other. But then he has failed to get down to the humdrum stuff that must follow: ensuring that the sewage systems work in Mosul, say, or stripping the energy bill of wasteful subsidies. Efforts of that sort capture few instant headlines, no doubt, but it is in such humble grunt-work that presidencies—accidental or imperial—are won or lost. This one will be no exception.

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Dealing with North Korea

Diplomacy's last chance

Sep 4th 2003
From The Economist print edition

And a useful job for China and Russia

AFP

Get article background

WHO these days would take North Korea's boss, Kim Jong Il, at his word? For years his regime systematically violated the nuclear non-proliferation treaty and then earlier this year ripped it up; a joint promise with South Korea in the early 1990s to keep the peninsula nuclear-free was a hoax; and Mr Kim cheated on his 1994 agreement with America to give up production of weapons-useable plutonium, secretly taking up uranium enrichment as an alternative route to a bomb. At talks last week in Beijing, North Korea's negotiator told his American, Chinese, Japanese, South Korean and Russian counterparts that his country now had nuclear weapons and the means to deliver them, and was ready to test one. For once the mendacious Mr Kim may be deadly serious. And this opportunity to end his sabre-rattling diplomatically is the last.

Whether or not North Korea publicly blasts itself across the nuclear threshold, issuing such threats in front of China and Russia, not just privately to America, raises the stakes. Both have tried to pretend that Mr Kim had no bomb, and that, offered enough by America, he never would. Yet their patience with his recklessness was already wearing thin: his nuclear threats have upset the region and risk setting off a chain reaction that could turn others, including Japan and South Korea, nuclear at speed. By bringing his weapons out from under the table, he has forced all the neighbours to take proper, albeit belated, notice of them. Mr Kim seems to (mis)calculate that fear of what he might do next will win him aid and the non-aggression treaty he has demanded of America. Instead, his brinkmanship has put him in a tight spot. China and Russia need to keep him there.

Mr Kim has had other opportunities to trade in his nuclear option, and spurned them. South Korea's sunshine policy in the 1990s, offering economic assistance in the hope of eventually warming up frosted political ties, was blighted by his refusal to countenance many more contacts between the two Koreas, even as he pocketed the aid. And all the while he was cheating on the 1994 deal under which he had promised to freeze and eventually dismantle his plutonium production in return for two western-designed nuclear reactors and interim deliveries of fuel oil. Why does he do it? Fear for his regime's survival if he lets down his guard, is one theory—hence his demands for a non-aggression pact from a more openly hostile Bush administration. But that record of cheating suggests that Mr Kim never seriously intended to give up his nuclear dabbling, no matter what the rewards on offer.

How can he be made to do so now? North Korea had demanded to negotiate only with America, but was pushed by an increasingly irritated China to accept six-way talks, as America had preferred. This has

shown North Korea how isolated it is on the nuclear issue—hence the volley of threats unleashed since. But it could also provide a framework for a more comprehensive, and with luck lasting, settlement.

America rightly insists that North Korea must dismantle its weapons before it can expect relations to improve much. But that is bound to be be a complex and time-consuming effort. America therefore needs to set out a workable sequence of verifiable steps to be taken. And since it understandably refuses to reward North Korea economically for giving up weapons it never should have had, others, including South Korea and Japan, could offer incentives to make any deal stick.

The precipice is nigh

As for Mr Kim, he needs persuading that holding on to his nuclear weapons, far from protecting his regime, will threaten its downfall. China and Russia should stop blocking moves to take his treaty-breaking to the UN Security Council. China supplies North Korea with most of its fuel and much else. It has been reluctant to flip off the taps for fear of destabilising its prickly neighbour. But the wider damage Mr Kim is doing gives China reason to get tougher. For if diplomacy fails to disarm North Korea, only force will be left.

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Drugs, patents and the WTO

Symptomatic relief

Sep 4th 2003
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A new deal on medicines for the poor is welcome, so far as it goes

Alamy

TWO years ago, sniping between rich and poor countries over market access and subsidies all but killed the Doha round of world trade talks. Next week, trade ministers will meet in Cancun, Mexico, to try to revive the round. Plenty of issues might yet prove fatal to the Doha negotiations (see article), but at least one sore spot—the battle over patents on pharmaceuticals in poor places—has been temporarily salved.

At issue has been compulsory licensing, a legal tool that confers the right to manufacture patented drugs without the patent-holder's consent. Under the World Trade Organisation's existing rules, compulsory licensing has been allowed under certain circumstances—for example, a national emergency—so long as the medicines are intended for predominantly domestic consumption. But many of the world's poorest countries, facing AIDS and other scourges, have no home-grown drug industry, and they hope to turn to drug companies in other countries, notably Brazil and India, to supply them with cheaper versions of expensive western drugs. The trouble is that the trade rules did not explicitly provide for this kind of export-oriented compulsory licensing, and WTO members have spent the past 21 months squabbling over whether, and how, they should.

The dispute, which threatened to poison the already troubled Cancun talks, was resolved in a deal late last week. On paper, it seems a welcome compromise: poor countries are free to choose the drugs they need to license compulsorily, provided they give all the details to the WTO; drug companies have received assurances that rich countries will not try to use this provision to bypass patents on high-priced drugs, and that measures will be taken to curb the flow of low-priced copies of patented drugs to wealthier markets.

Even if this sort of compulsory licensing works as intended, which is in doubt, it will go only so far to help the millions of poor people who lack access to new drugs and decent medical care. While competition (or the threat of it) from generic copies of patented drugs can certainly drive down prices, plenty of other things can push them up. Examples include tariffs on drug imports (believe it or not, these exist) and unco-ordinated (or corrupt) purchasing and distribution systems. These issues need to be addressed with as much passion as countries have brought to the argument about drug patents—a quarrel which has been more about ideology than the practicalities of delivering life-saving drugs to people in need.

Nor should this deal on compulsory licensing be seen as a substitute for other attempts to improve access to drugs, such as pharmaceutical donations, global price discounts and voluntary product licensing. If the world is ever to achieve public-health goals such as treating 3m HIV-infected people in

poor countries by the end of 2005—and if the pharmaceutical industry is ever to see its tattered public image restored—then many more such efforts are required. And the lowest-priced drugs in the world, and the best-laid plans for improving poor-country health-care systems, will make little difference without the money to finance them. Promises made by rich countries over the summer to increase funding for AIDS, tuberculosis and malaria, for example, must be kept.

Still, a quarrel that might have wrecked the Cancun talks and thereby done great harm to the interests of poor people everywhere has been settled for now. Trade negotiators must resolve to make the most of the opportunity before them.

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Asian currencies

Snow business

Sep 4th 2003
From The Economist print edition

The Bush administration's desire for stronger Asian currencies may backfire

WITH America living beyond its means—measured by mounting private and public debts and a record current-account deficit—the trip this week to Beijing by John Snow, America's Treasury secretary, was a naked attempt to blame others for problems created largely at home. Mr Snow has taken up the misleading lament that China's undervalued currency and cheap exports are tearing the heart out of American industry. He called on the Chinese government to stop manipulating its currency and to allow it to float. This may have won plaudits back in America, but it shouldn't have. Mr Snow has been playing a dangerous game in Asia.

First, he surely knows that China's banking system is insolvent. Giving ordinary Chinese the chance to hold whatever foreign currencies they like would lead not to an expected increase in the value of the Chinese yuan, but to a stampede to withdraw local-currency deposits. This would not only imperil China's banking system, but would result in a collapse of the yuan, exactly the opposite of what Mr Snow claims he seeks. Both developments would send out shockwaves bigger than those from Asia's financial crisis of 1997-98. Mr Snow, who has a PhD in economics, must know this. In other words, he cannot be serious. The best guess is that he is pandering to critics in Washington, and that all he really wants is for China to widen the band within which the yuan is allowed to trade, which might produce a modest appreciation.

For domestic reasons, China should do this, along with several neighbours with quasi-managed currencies. Since the Asian crisis, these countries have kept their currencies down, exporting like mad to restore their external balances. Foreign-exchange reserves have shot up.

These reserves should not be seen as a measure of virility, rather as a cost of the region's imbalanced model of growth, too dependent upon exports and not enough on markets for products and services at home. Meanwhile, the chief domestic effect of high reserves has been rampant credit creation. In China's case, this has produced, in turn, fresh and worrying asset bubbles, notably in property. When the bubbles burst, the immense strains on the country's financial sector will only grow. The dangers of overheating—and the lamentable paucity of policy instruments at the government's disposal to control an overheated economy, despite a decade of financial reform—make a good case for a modest rise in the value of the yuan, with other Asian currencies following China's lead.

Still, the notion, now so popular in Washington, that China is pursuing a mercantilist policy based upon an undervalued currency is nonsense. Since its entry into the World Trade Organisation, trade barriers have come down and imports have shot up even faster than exports. China has a $100 billion-a-year trade surplus with America, but it is barely in surplus with the world as a whole.

Another drawback

So to the second, more dangerous, aspect of Mr Snow's game. Since the yuan and other managed currencies have slid along with the dollar's fall over the past year, the secretary is entitled to expect other nations to take some of the strain in helping set right American imbalances. Yet East Asia's purchases of American bonds—a net $160 billion in the first half of this year alone, mainly by China and Japan—are a chief reason why America has done so little about those imbalances itself: for the purchases have kept interest rates low, propping up demand in America and helping inflate a bubble in housing. A stronger yuan, if it led to fewer purchases of American bonds and to higher interest rates, could burst that housing bubble. Presumably, that is not what Mr Snow had in mind when he left for Asia.

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Latin American politics

Memories of a coup

Sep 4th 2003
From The Economist print edition

Chile is a success, but the era of dictatorship still casts shadows

Reuters

Get article background

FOR Chile, and for Latin America, September 11th was a significant date long before the attacks on the World Trade Centre. On that day in 1973 Salvador Allende, the elected president of a left-wing government, committed suicide as his palace was bombarded by planes and tanks. The coup mounted by General Augusto Pinochet and encouraged by the United States was the prelude to savage repression: at least 3,000 civilians were killed, and tens of thousands were tortured or exiled.

It formed part of a regional pattern. Coups swiftly followed in Uruguay and Argentina, where 30,000 died at the hands of a uniquely thuggish dictatorship. But what made the Pinochet coup all the more shocking was that Chile had a reputation as one of Latin America's most stable democracies.

Thirty years on, Chile is a far happier country. It has become Latin America's most successful economy—in part because of the free-market economic reforms imposed, by trial and error and with unnecessary cost, by General Pinochet's dictatorship. Since 1990, Chile has again been governed by Allende's Socialist Party, but this time in a moderate and reformist coalition.

Yet the events of 1973 still reverberate, in Chile and in the rest of Latin America. Allende's death made him a symbol, a martyr for both democracy and socialism. For his followers, 1973 seemed to confirm that in Latin America it was impossible to achieve radical change by democratic means. On the right, by contrast, the armed forces were seen as having saved Chile from economic disaster and a government that had violated the constitution in an effort to impose communism.

The verdict of historians lies somewhere in between. Allende was himself a relatively moderate figure—but his supporters tried to use his narrow electoral mandate to launch a socialist revolution. It was almost bound to end in disaster. In 1973, a majority of Chileans probably favoured his overthrow. They did not favour the repression that followed.

With time, and the end of the cold war, many Latin Americans have drawn wiser lessons. Much of the left has abandoned revolution for democracy and social reform. The right has accepted the left's electoral victories, most recently that of Luiz Inácio Lula da Silva's Workers' Party in Brazil.

Nonetheless, Latin America's era of dictatorship still casts several dark shadows. In Chile itself, right-wing parties have blocked all efforts to purge the constitution of its remaining undemocratic elements. Thanks to General Pinochet, free-market economics is indelibly associated with authoritarianism in the Latin American public mind (a link reinforced by Mexico's Carlos Salinas and Peru's Alberto Fujimori). That makes advocating liberalism a much harder thing for the region's democrats to do. The role of the United States in ousting Allende—reprehensible, even if not decisive—continues to fuel hostility towards the superpower.

Lastly, in Chile, as elsewhere in the region, the price of recovering democracy included abandoning the search for justice for the victims of dictatorship. In several countries, efforts are now being made to re-open this question (see article). To many, that might seem a divisive distraction. But passivity in the face of egregious crimes by the state or by guerrillas is a poor foundation on which to build the rule of law—something which many Latin American democracies still lack.

A segment of the Latin American left still hankers after revolution. That may be inevitable in a region of such deep inequalities and widespread poverty. One more reason to hope that democracy can achieve the union of liberty and prosperity that eluded both Allende and Pinochet.

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Letters

Sep 4th 2003
From The Economist print edition

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Forever in debt

SIR – You advise Japan and other countries to become fiscally virtuous only when their economies recover ("Dicing with debt", August 23rd). Then governments should "act swiftly to tighten their belts." Is that not the advice Japan was given over the years during which its public debt exploded? What if economies do not clearly recover but grow at zero or low rates? And what about the timing of the intervention? When is the right moment, after the recovery has started, to act "swiftly" and adequately? How can you be so confident that governments will allow such an intervention when the need appears evident even to *The Economist*?

You cite George Washington on the dangers of public borrowing. You may add the views of David Hume who, after commenting on the attractiveness of public borrowing to ministers wrote: "The practice...of contracting debt will almost infallibly be abused in every government. Therefore...either the nation must destroy public credit, or public credit will destroy the nation."

Vito Tanzi
Bethesda, Maryland

Forgetting the elephant

SIR – It is wrong to suggest that human-elephant conflict has increased in Africa because of growing elephant numbers after the 1989 ivory-trade ban ("When man and elephant collide", August 23rd). Though elephant populations in the fenced-in reserves of a handful of southern African countries have indeed recovered since the ban came into force, across the continent elephants number no more than 450,000—down from 1.3m in 1980. In Kenya, elephants have still to recover from an 80% plunge in numbers because of ivory poaching in the decade prior to the ban.

The main reason for the kind of conflict you report is Kenya's lack of a land-use policy; urban centres are spreading and farmers moving into traditional elephant territories. This has fragmented habitat and disrupted migration routes, leaving elephants with little alternative but to raid fields in order to survive.

Claire Wallerstein
International Fund for Animal Welfare
London

Trouble in Chad

SIR – It is ironic that you question the integrity of NGOs but accept at face value the claims of the companies you cite ("Living with the enemy", August 9th). You lift material apparently verbatim from the company's press releases claiming that ExxonMobil "worked with a large number of mainly local NGOs in Chad" to plan the development of oil extraction in the south of the country.

Not exactly. Company representatives did meet with local groups but most of these meetings took place in the presence of Chad's military, the same group that had massacred hundreds of civilians in the oil production area in order to "pacify" the region in preparation for the project. The initiative to control oil revenues in Chad was not designed by Exxon but rather forced on the government by the World Bank which, in turn was responding to external pressure. The initiative has not had a promising start: the first

money that Exxon paid to Chad's regime as a “signing bonus” was used to buy arms.

Susanne Breitkopf
Friends of the Earth
Paris

Credit where it's due

SIR – Your article on credit risk focuses on a real threat to our financial system (“Gone too far?”, August 16th). Deficiencies in current accounting requirements may be encouraging banks to transfer credits to insurance companies or other institutions, and that transfer may well not be transparent.

The potential for misleading financial reporting may be greater than you portray. I am not aware of any banks or other entities that account for credit losses under either international standards or America's generally accepted accounting principles at fair value. Also, banks and insurance companies (including those in Europe) that do use existing international standards have no requirement to account for derivatives.

We need a consistent and transparent method of accounting that does not provide incentives to shift losses where they might not be properly accounted for. The International Accounting Standards Board is trying to take steps in that direction and has proposed that all entities account for financial instruments, including credit derivatives, in much the same way as America's GAAP. Curiously, certain European banks and insurance companies have opposed the transparency that would result from such accounting. They have taken their cause to the politicians and there is a possibility that the information may be withheld from the marketplace, in which case the losses you have addressed might indeed be “fudged or hidden”.

James Leisenring
International Accounting Standards Board
London

Open letter

SIR – It is important to point out that the 255-plus government agencies, companies and universities in the Open GIS Consortium develop open software specifications, not necessarily open-source software (“Flying blind”, July 26th). The common goal is to make it easy for people to publish, find, combine and use geographic information of all kinds from sources scattered across the web. Customers, many saddled with inflexible “closed” systems, want to be able to share easily geographic data and online-processing services with others who may be using different vendors' technologies. Implementation of Open GIS specifications by technology developers is the key to making data and application sharing possible.

Mark Reichardt
Open GIS Consortium
Wayland, Maryland

Rebuilding Afghanistan

SIR – I disagree that the survival of Afghanistan comes down to whether or not the forces of national integration are stronger than the forces of local disintegration (“Not a dress rehearsal”, August 16th). The question on which Afghanistan's future depends is simple. Which side will America finally back: that of the president, Hamid Karzai, and ISAF, the international peacekeeping force, or that of the warlords? So far, America has not stepped up its commitment to the expansion of ISAF nor given the support necessary to consolidate Mr Karzai's command.

America's choice to fight the war in the south, independent of Mr Karzai and the UN, is folly. It weakens Mr Karzai's position and destroys his ability to raise a truly multi-ethnic national army. Desertion rates are astronomical. Pushtuns earn more money fighting alongside American forces in the south. Concurrently, the position of the warlords, who are manipulating the Americans just as they have every other interventionist government of the last several decades, is strengthened with money and arms to increase control over their regions.

How strong the forces of disintegration will be in peace depends on how the war is won. It appears America is in favour of a fractious Afghanistan, and so it will remain.

Matthew Wiger
Cambridge, Massachusetts

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American politics two years on

The battleground emerges

Sep 4th 2003 | FALLS CHURCH, VIRGINIA AND WASHINGTON, DC
From The Economist print edition

George Bush has lost some of his political invincibility, but he will still be a hard man to beat

IT IS a hot Saturday afternoon, the roads around Falls Church, Virginia, are clogged with cars—and nobody is happier than Joe Trippi. On January 31st, he was running a presidential campaign with seven volunteers and a mere $150,000 in the bank. Mr Trippi often had to dispatch his candidate unaccompanied to speaking engagements, to save air fares. Now 4,500 people have turned up at short notice in a Virginia suburb—and $350,000 has just come in over the internet that morning.

The rise of Howard Dean, the former governor of Vermont, has been the most exciting thing in American politics for years. It is not unusual for some maverick, such as John McCain, to cause sudden trouble for the front-runner in the primaries. But this time Mr Dean himself is the front-runner. He leads the main establishment candidate, John Kerry, by 21 points in New Hampshire, which holds the first primary on January 27th, and he is raising far more money than any other candidate.

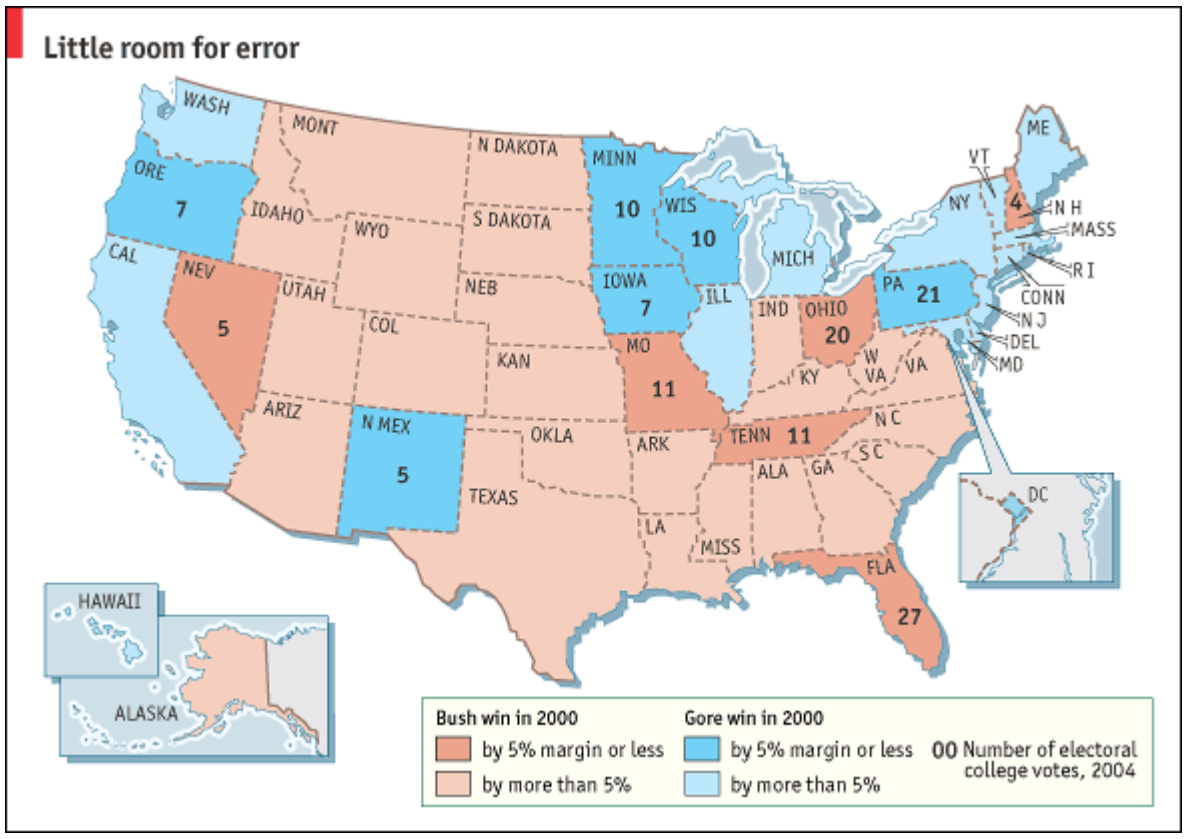
Mr Dean's campaign is testament to two forces. The first is the power of the internet, which he has used to get volunteers and money. The second is the Iraq war, which he opposed. Mr Dean says he represents the democratic wing of the Democratic Party—the wing that is furious with its leaders, like Senator Kerry, for going along with everything George Bush says.

Mr Dean's sudden eruption on the scene encapsulates the debate about how much American politics has changed in the two years since the attacks. On the one hand, he represents something old—a return to politics before September 11th, where America was the “50:50 nation”, evenly split, and where most Democrats hated Mr Bush. On the other hand, the Iraq war, which has given him his upper hand, belongs firmly to the new world of post-September 11th politics.

With the summer break over and the race for the White House starting, both Democrats and Republicans are scrambling to understand what has happened to their country. All eyes are on the presidential campaign, not least because it represents the best chance the Democrats have of wresting power from the Republicans.

Thanks to a bout of redistricting, as Americans call gerrymandering, the Republicans should keep the House. They may even gain seats in the Senate, where the Democrats are defending more vulnerable seats. But the presidential race, where fewer than half the voters say they want to re-elect Mr Bush, is up for grabs.

In fact, Mr Bush has one tiny structural advantage. The electoral college has been rejigged after the 2000 census to reflect the continuing demographic drift to the more conservative south and west. If Mr Bush were to win the same set of states he won last time, he would get 278 votes next year, not 271 (see map). He could now lose, say, West Virginia, a blue-collar state he nabbed from the Democrats in 2000, and survive. Yet the presidency is a much more marginal affair than the congressional races: witness how Mr Bush has cosseted West Virginia with steel tariffs.



Both parties, besides, have something to prove. Conservatives, led by the president's strategist, Karl Rove, want to establish the Bush presidency as an electoral turning-point similar to the presidency of William McKinley, whose election in 1896 paved the way for 20 years of almost uninterrupted Republican supremacy. For Democrats, the main motive is fear: the prospect of another four years of unrestrained Republican rule, with social programmes overturned and conservative judges crammed on to the bench.

Like father, like son?

These hopes and fears are tied to the question of September 11th, and the difference it made. Optimistic Democrats argue that, in two hectic years, the wheel has gone full circle. As America rallied around the flag, Mr Bush's popularity soared. Now his approval ratings are back to where they were, just above 50%. Once again, he is seen as a divisive president, who set out on a more conservative path than many imagined. And the issue which matters most to voters is that old battleground, the economy.

This is not Mr Bush's strongest card at the moment. The recovery continues, but it is not producing jobs. So far, more than 3m jobs have been lost on his watch—the worst record to defend since Herbert Hoover was swept away by Franklin Roosevelt. Democrats have their eyes not just on West Virginia, but on rustbelt Ohio and old-manufacturing Kentucky. A weak economy would also make it easier for them to defend Pennsylvania, a state Mr Bush has wooed and visited more than any other since becoming president.

Just as Republicans cite 1896, Democrats crow about 1992. After the Gulf war in January 1991, George Bush senior's approval ratings topped 90%; by the summer of 1992 they had fallen by 60 points, as attention turned to the economy. The son's approval rating is now lower than the father's was at this stage of the 1992 campaign. As one T-shirt read in Falls Church, “Like Father, Like Son: One term only.”

It is a sign of how things have changed that some Republicans, too, think politics is back to normal. At the end of his regular Wednesday-morning meeting for conservative activists, Grover Norquist, a leading

anti-tax campaigner, accepts that the September 11th effect is over: “Next year, voters will make their choice based on domestic issues, rather than to do with national security.” But people like Mr Norquist do not accept the 1992 comparison.

First, they say, Mr Bush has learned from his father's complacency. He is out on the stump, holding summits, announcing economic recovery plans. He also has full command of the most efficient White House political machine in recent memory. According to Republican lore, the first President Bush would never have lost in 1992 if his political rottweiler, Lee Atwater, who died in 1991, had been able to sink his teeth into Mr Clinton as he chewed up Michael Dukakis. The current president has the redoubtable Mr Rove on hand.

Most important of all, Mr Bush, unlike his father, has a firm grip on conservative America. He has been meticulous in looking after his electoral base. All the main conservative groups—gun-owners, evangelical Christians, pro-lifers, anti-tax people—have been thrown some slabs of red meat. Mr Bush has made the occasional *faux pas* with his base—such as talking civilly to gay groups—but not on matters that are top priorities for the right.

Mr Norquist predicts bigger trouble from two other Bush mistakes. The first was the sending of a group of refugees back to Cuba—enraging Cuban-Americans, who are needed to win Florida. The second was the appointment of Daniel Pipes, a hardline supporter of Israel, to the board of the Institute of Peace, an independent outfit dedicated to conflict resolution; this has infuriated Muslim Americans, another Republican-leaning group whom Mr Rove has been courting.

Ground war v air war

Banging on about the conservative base may seem like special pleading by Mr Norquist: what are conservative activists for, but to hector the president to stand by the movement? Look again. American politics has become increasingly focused on getting out the true believers.

Until recently, running an election campaign seemed simple. You raised as much money as possible; you spent the money on TV ads; and you aimed much of that advertising at independent voters. These independents, who now account for roughly a third of the electorate, have achieved mythical status: the soccer mom, wary of strict Republican policies on abortion, and Joe Sixpack, the blue-collar Reagan Democrat who distrusted liberals on guns and the death penalty.

Now the conventional wisdom is changing. First, pollsters reckon that fewer than 10% of these independents can really be classed that way. The rest tend to be loyal to one party or the other.

Second, advertising matters much less than getting out core supporters. In a country where most voters now have more than 50 TV channels to choose from, Joanne Public tends to reach for the zapper each time a political ad appears. And since most ads are negative, they tend to put her off voting (which in America is a complicated business anyway). But when her prayer-group or union branch arranges an absentee ballot for her or sends a bus to get her to the polling booth, she tends to vote.

The last two elections seem to bear this out. In the 2000 election, Mr Bush's team expected to win comfortably. He had a 5% lead in the polls and had been out-advertising Mr Gore. But the Democrats proved much better at turning out their troops. The unions had pushed out the vote for Mr Gore; by contrast, some 4m evangelical Christians had stayed at home.

In the 2002 elections the Republicans poured money into the ground war, especially in the last 72 hours. Governor Bill Owens of Colorado, one of the party's rising stars, says this last-minute drive helped save one Senate seat in his state, recapture the state Senate and win a vital congressional seat. In Georgia, Republicans exploited local issues such as the Confederate flag to turn out white rural voters in greater numbers than urban blacks—and the Democrats ended up losing both a seat in the Senate and the governor's mansion.

Once again, both sides are gathering their forces. The Republicans are trying to expand their base beyond organisations such as the National Rifle Association, and are fretting over how to get absentee ballots to frequent flyers who may be airborne on election day. Mr Trippi points to the internet as a way of mobilising Democrats, particularly young and angry ones.

The Iraqi quagmire

Yet the idea that, as memories of September 11th fade, electoral logistics and the economy will settle the next election is belied by what the candidates themselves are saying. Far from ducking the question of national security, Mr Dean spends a good part of his stump speech talking about nothing else. He would not hesitate to send troops anywhere in the world, he says, but he could not support the Iraq war because it was based on deception. He furiously attacks the idea that Mr Bush is the defence candidate, claiming that the president has cut benefits for troops to pay for tax cuts “for his rich friends at Enron” and that he is too soft on Saudi Arabia.

Until recently, most establishment Democrats used to steer clear of national security. But with every casualty in Iraq, they too feel more emboldened. Mr Kerry now lays into Mr Bush on the subject almost daily. Is this wise?

It is certainly true that Iraq is worrying the electorate. But American voters still seem to believe Mr Bush when he says that America will prevail in the end. As for the worries about peeving Europeans, it is hard to think of a better way to drum up votes in the red (ie, Republican) states than mentioning Jacques Chirac.

Indeed, most of the people who maintain that the war on terrorism will be a crucial factor in the election are Republicans. In last year's mid-term elections, Democratic senators who had blocked the homeland-security bill lost their seats in both Georgia and Missouri. Michael Barone, a political analyst who was one of the first to spot how evenly balanced America was in the 1990s, argues that the 2002 elections, in which the Republicans won 51% of the popular vote and the Democrats only 46%, could have marked a breakthrough for the right.

Mr Barone bases this partly on factors that have nothing to do with September 11th (for example, the ever-larger class of property-owners and investors who may be sympathetic to Republican causes, such as privatising Social Security). But national security is right at the forefront. Conservatives say that, in effect, the exceptional period was not the 20 months after September 11th but the 11 years that preceded it, after the fall of the Berlin Wall in 1989. These were the lullaby years, when national security hardly mattered.

In Bush they trust

For the Republicans, the war serves several purposes. It unites the party. It has also helped bolster Mr Bush's reputation. (“Nobody thinks of him as an accidental president any longer,” says Mr Owens. “Voters may not like him, but they understand his capacity to lead.”) And it pushes Republican issues to the front of people's minds.

In fact, both sides in the long debate about the importance of September 11th could be right. Voters will indeed vote with their wallets—but they will do so only for “prequalified” candidates whom they trust to protect the country. Unless some dramatic change occurs, Mr Bush will have earned that prequalification with the vast majority of voters. Indeed, they will know what to expect from him. He may seize on the

odd new issue—such as reforming Social Security—but he will essentially offer Americans four more years of the same.

The question-mark comes with his opponent. A recent *Newsweek* poll showed Mr Bush losing an election to a hypothetical Democrat by about five points. But as one Republican pollster points out, an unnamed candidate is like a blind date: voters can attach all their hopes and dreams to him. At some point, he turns up on the doorstep—and they see the grim reality.

In all, there are nine candidates in the Democratic primary, with General Wesley Clark likely to join soon. Five look like serious contestants, and Mr Kerry was supposed to be the favourite. The lantern-jawed senator from Massachusetts has years of experience in the Senate, a dramatically good war record in Vietnam and the backing of much of what passes for the Democratic establishment. But Mr Kerry, who was educated in a Swiss private school, has some difficulty in connecting with ordinary voters. And he is open to the charge that he is just another Massachusetts liberal. Republicans have already assembled a list of all the times he has voted against defence programmes.

For the moment though, Mr Kerry's problem is not Mr Bush, but Mr Dean. The latter's rise in New Hampshire, which was supposed to be Kerry country, is making Washington Democrats—terrified at the prospect of a new George McGovern, whose anti-war candidacy was buried by Richard Nixon in 1972—look again at the three people who might become the ABD (Anyone But Dean) candidate.

Ideologically, Joe Lieberman would fit this position most neatly. Thanks to his vice-presidential run in 2000, he is still the best known Democrat nationally. While the other candidates have all moved to the left (particularly over Iraq), he has stuck to the middle ground, warning his colleagues about the dangers of being seen as anti-American. Despite or because of this, his campaign has yet to take off.

Another old hand is Dick Gephardt. The former House speaker is an old-style Democrat, suspicious of free trade and devoted to fighting for the working man. Despite these credentials, he is running behind Mr Dean in Iowa, a state he won in 1988 and where trade unions matter in the Democratic primary.

The candidate Mr Bush's people feared most at first was John Edwards. Mr Edwards, a moderate and young southern senator, has some Clintonesque touches, even tilting his head to one side while he listens to voters tell their tales of woe. He has an appealing biography (poor boy becomes millionaire trial lawyer), but so far the first-term senator has looked inexperienced. His best chance lies in the timing: he could become the default ABD candidate in the later southern primaries if Mr Dean knocks out Mr Kerry and Mr Gephardt in the north-east, though Mr Lieberman could grab that chance too.

The Dean factor

Whichever way you look at it, Mr Dean is driving the Democratic primary. Is that really the disaster many Democrats fear? He has a good voice, a firm manner (he is comfortable with himself in a way that Mr Gore never was) and, as his stance on defence shows, he is not a shrink-wrapped liberal. A pro-gun, pro-death-penalty fiscal conservative, he cuts a figure much like Jimmy Carter's in 1976—an honest man running against the entrenched ideas of both parties. But he is still the governor of a small, quirky state, and he opposes a war that most Americans still support.

Were Mr Dean to win the nomination, he could move to the centre a bit—by, for instance, choosing General Clark to be his running-mate, or by changing his economic policy from repealing Mr Bush's tax cuts to repealing only those that please the rich. Even then, to win, Mr Dean would have to count on both the economy and Iraq getting worse. That could happen. But for the moment, despite those bad polls, Mr Bush is still in the driving seat.

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America and the United Nations

A change of heart

Sep 4th 2003 | LONDON AND WASHINGTON, DC
From The Economist print edition

EPA

And a big victory for Colin Powell and the generals over Donald Rumsfeld

AS THE White House tells it, there has been no U-turn. But this week, George Bush decided to ask the United Nations to approve the creation of a multinational force in Iraq. Although the move had been leaked beforehand, he decided to make the Dutch prime minister his spokesman. Having confirmed the president's intentions, Jan Peter Balkenende announced that Mr Bush was willing to give the UN “a larger responsibility”, before adding “and that is very good”.

As *The Economist* went to press, a draft resolution was being discussed by the five permanent members of the Security Council. The resolution would create a UN force in Iraq that will be under American command but will also intermittently report back to the Security Council. It also invites the American-appointed Iraqi Governing Council to submit a plan to the UN for drawing up a constitution, establishing a provisional government and holding elections (though, crucially, it does not give the UN the final say in this matter).

Mr Bush's people depict this as part of a continuous negotiation that has gone on since the end of the war. In practice, the offer to hand over some meaningful control to the UN marks a big shift in foreign policy—and another battle won in the never-ending struggle between the Pentagon and the State Department.

Iraq has been Donald Rumsfeld's show. It was the septuagenarian defence secretary who masterminded the defeat of Saddam Hussein, convincing his generals that, thanks to the high-tech “transformation” of warfare, America could finish off Mr Hussein with a relatively small army. Having proved his point triumphantly by winning the war so quickly, Mr Rumsfeld then seized hold of post-war Iraq.

The Pentagon has provided nearly all the security forces (some 150,000 troops, compared with just 21,000 from other countries). The American overseer in Iraq, Paul Bremer, was supported by Mr Rumsfeld. Meanwhile, Paul Wolfowitz, the deputy defence secretary (and the most powerful neo-conservative in Mr Bush's team) keeps a close eye on what is going on.

In this takeover, Mr Rumsfeld was helped, at least indirectly, by countries like France. The State Department tried to “multinationalise” post-war Iraq after the hostilities were over. But France threatened to veto any resolution at the UN that legitimised America's military action and that failed to give the UN political control. The secretary of state, Colin Powell, later managed to win a small, mostly

advisory, role for the UN—through a mission headed by Sérgio Vieira de Mello.

The death of Mr de Mello, with 23 others in a massive bomb blast last month, underlined how badly Mr Rumsfeld's strategy was working in practice. But so have a lot of other things: the failure to get electricity working in Baghdad, the recent killing of the main Shiite cleric in Iraq, the near-daily attacks on US troops and the stream of angry e-mails to wives at home.

These worries have roused Congress. Henry Hyde, a conservative Republican, recently urged Mr Bush to “combat a sense of drift” in Iraqi policy and also to bring in more international troops. A new report by the Congressional Budget Office says that America does not have a big enough army to garrison Iraq beyond next spring. Without troops from elsewhere, it will either have to reduce numbers, activate more National Guard units or stretch out tours of duty beyond one year. The White House has now told Congress it will need an extra $60 billion next year for Iraq—twice the sum expected.

These frustrations have provided an avenue for Mr Powell, who renewed discussions with Kofi Annan, the UN secretary-general, after the UN bomb. Last week Richard Armitage, Mr Powell's closest ally, suggested an international force under American command.

The State Department has not been the only force urging Mr Bush to internationalise the operation. The British have also found dealing with the Pentagon difficult, and have long insisted that the project requires more troops. But the decisive voice may have come from inside Mr Rumsfeld's own department.

The generals he earlier bullied into line want more “boots on the ground” in Iraq—and they realise that to do this they need to get a new UN resolution. According to the *Washington Post*, Richard Myers, chairman of the Joint Chiefs of Staff, John Abizaid, the new head of the US central command, and Peter Pace, vice-chairman of the Joint Chiefs, have all been secretly lobbying hard for internationalisation.

Mr Bush's decision to side with Mr Powell and the generals over Mr Rumsfeld seems to be part of a pattern of sidelining the civilian hawks. The neo-conservatives have also had a rough time. In one way they agree with the generals: they have been telling anyone who will listen that without more troops on the ground in Iraq, their dream of transforming the Middle East will perish. And they are furious with Mr Rumsfeld for risking the peace by sticking to his lean-warfare tactics. On the other hand, they are also the people who have been most critical of UN involvement.

So Mr Powell has won a victory. But do not expect too much. Mr Bush is keen on getting more international troops into Iraq, to be sure. But he will also insist that they should be under American command, and one senior administration official says the total number of troops will not rise. Beyond this stands the tricky question of balancing the new bigger role for the UN with that of Mr Bremer and of the Iraqi Governing Council. If his allies will not meet him half way, then Mr Rumsfeld will no doubt have the president's ear again.

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Inequality

Would you like your class war shaken or stirred, sir?

Sep 4th 2003 | WASHINGTON, DC
From The Economist print edition

What widening inequality in incomes and wealth reveals about America—and the chances of it seeping into the presidential race

FOLLOW almost any Democratic presidential candidate around, and it won't be long before you hear this statistic. In 1980, the average CEO was paid around 40 times as much as the average worker; now the multiple is above 400. George Bush's tax cuts “for the rich”, say the likes of John Kerry, who formally announced his candidacy this week, must be scrapped to help those of lesser means. Meanwhile, pundits, notably Paul Krugman at the *New York Times*, have argued that a new “plutocracy” is rising.

The idea that America is becoming a less egalitarian place seems to worry the Republicans too. On Labour Day, the country's only official salute to the proletariat (established in 1894 to be the first Monday in September to disavow any connection with May 1st), Mr Bush donned his working-stiff outfit and baseball hat and headed off to Richfield, Ohio, to reassure his union brothers that he was appointing a new tsar for manufacturing.

Does America really have an inequality problem? Statistically, the answer is “Yes, but”. Much the same applies to the question of whether the Democrats can turn this into a winning political issue.

By whatever measure you use, the richest Americans have done very well over the past few decades. According to the Census Bureau, the share of national income going to those in the top fifth of earners rose from 44% in 1973 to 50% in 2000. The share going to the top 1% rose to 15% in 1998, higher than it has ever been since the second world war, according to a recent study of tax returns by two economists, Thomas Piketty and Emmanuel Saez.

Take wealth rather than income, and America's disparity is even more startling. The wealthiest 1% of all households controls 38% of national wealth, while the bottom 80% of households holds only 17%, according to the Economic Policy Institute (EPI). Around 85% of stockmarket wealth is held by a lucky 20%.

If the rich have been doing much better than other Americans in relative terms, the poor have failed to improve their lot as they did in the 1950s and 1960s. The wage incomes of the bottom 20% of households have barely grown in real terms since the mid-1970s. As for wealth, the bottom fifth has

debts that exceed its assets, making its wealth a negative number. The bottom fifth's percentage of national wealth worsened from -0.3% in 1983 to -0.6% in 1998.

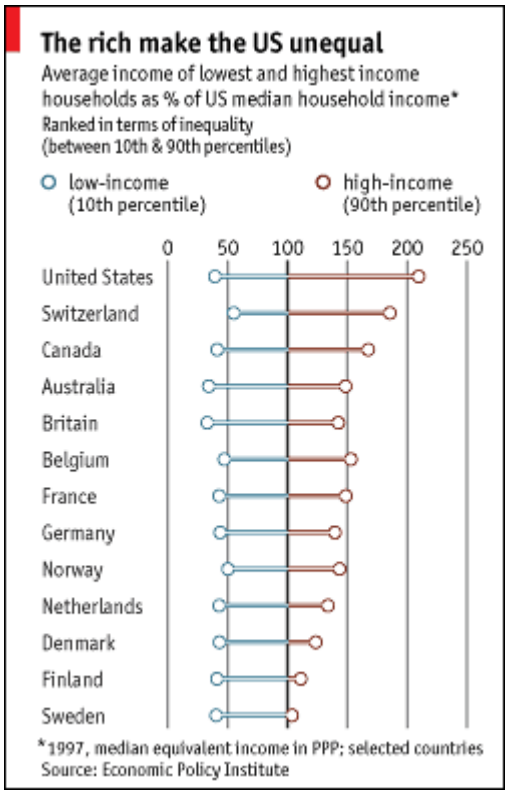
These depressing statistics, though, come with two caveats. First, poorer Americans are better off than they once were. The proportion of Americans in poverty now stands at 12%; in Mr Krugman's supposedly golden 1950s, it reached 22%.

Meanwhile, although real wages appear stagnant, poor people can buy far more with them. The combination of technology and globalisation—the very thing that has depressed some manufacturing wages—has put many more erstwhile luxuries within the grasp of poorer Americans. They now own better-quality cars and washing machines than rich ones did a generation ago; mobile phones and computers are now mass-market items.

Second, America is a remarkably mobile society. As this year's Economic Report of the President points out, 50-80% of the unfortunates in America's bottom quintile push themselves into a higher quintile after 10 years. There are worries about mobility; Chris Edwards of the Cato Institute complains that marriage patterns may now be reinforcing inequalities, since yuppies marry yuppies these days. Yet, in broad terms, the idea that America is a land of opportunity still stands.

Interestingly, Americans are usually over-optimistic about their chances of promotion. An opinion poll a couple of years ago found that 19% of American taxpayers believed themselves to be in the top 1% of earners. A further 20% thought they would end up there within their lifetimes.

Seen from an international perspective, America certainly looks an unequal country, but in a way that many of those optimistic Americans might be proud of (see chart). According to the EPI, admittedly using figures from the late 1990s, the gap between the top and bottom tenth of earners in America is wider than that in almost any other rich country. Even so, America's poorest are (in real purchasing-power terms) only a tiny bit worse-off than their peers in Sweden, Finland and Denmark; and they are better-off than those in Britain and Australia.



The relative inequality in America comes from the people at the top doing unusually well. The top 10% of Americans are nearly twice as well off as the top 10% of Nordic households. They are also much further away from the mean.

How does this translate into politics? Most Americans seem to understand that inequality is not just to do with tax cuts for the rich. The introduction of new technology—ATM machines and the like—has done far more than anything else to throw Americans out of work. Inequality is also tied up with social problems, such as the rise of single-parent households (see article). One reason, arguably, why real incomes for poor Americans rose at the end of the 1990s was because the welfare-reform law in 1996 forced them to find work.

Similarly, Americans, even in recessions, still tend to lack the deep-rooted class envy that still afflicts Old Europe. They tend to associate wealth with the people who make it rather than inherit it (hardly surprising in a country where the richest two people are Bill Gates and Warren Buffett, rather than the queen and the Duke of Westminster). As Mr Edwards points out, many of the visibly wealthy are self-made entertainers and sports stars.

This helps explain why Al Gore's “People v the powerful” campaign failed to catch fire in 2000. Yet, three years later, Mr Bush looks more vulnerable on two fronts. First, the current jobless recovery is hitting poor America particularly hard—and prompting comparisons with the golden years of Mr Clinton's presidency. Although the recession technically ended in November 2001, unemployment has risen from 5.6% to 6.2% since then. The EPI calls this the worst recovery for job creation since records began in 1939. For those still in work, real wages since the end of 2001 have fallen by about 1%, says the institute.

Second, the tax policies of the Bush administration will probably only exacerbate the already wide gap

between rich and poor. The inheritance tax has been all but scrapped. Marginal rates on top incomes have come down. Most important may be this year's reduction in capital gains and dividends taxes which, by some estimates, will provide a windfall to just the top 20% of households.

It is these “giveaways” that the Democrats are now concentrating on. But raising marginal tax rates, the Democrats' traditional solution to inequality, usually hits many people who regard themselves as middle-class, and does nothing to reduce the vast fortune of true plutocratic families, such as, well, Mr Kerry's.

Indeed, is the Harvard-educated Mr Kerry, who is married to a Heinz heiress worth $600m, any more an *homme du peuple* than George II, as some Democrats like to call Mr Bush? Howard Dean, the Democratic front-runner, may stress his occupation as a humble doctor, but he grew up in the Hamptons and Mr Bush's grandmother was a bridesmaid to his granny. As long as the presidency remains the shuttlecock of different scions of the north-eastern aristocracy, Americans may have a hard time thinking of any party as the champions of the poor.

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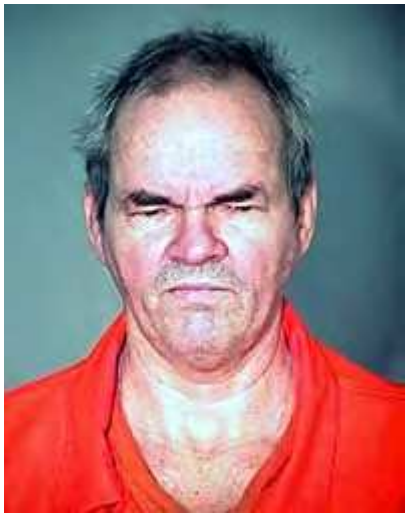
The death penalty

Saved, perhaps

Sep 4th 2003
From The Economist print edition

A stoned judge reopens the issue of capital sentencing

AP



Summerlin: in better nick than his judge

MORE than a hundred prisoners awaiting execution in Arizona, Idaho and Montana could be reprieved as the result of a federal appeals court ruling this week. In a 8-3 vote, the 9th Circuit Court of Appeals ruled that last year's Supreme Court decision requiring death sentences to be decided by juries, not judges, should be retroactive.

Arizona, where some 90 death-row inmates may be affected, has decided to appeal this ruling to the federal Supreme Court. Its own state Supreme Court, along with Nevada's and the 11th Circuit Court of Appeals, has already decided that the federal Supreme Court ruling in *Ring v Arizona* should not apply to cases in which appeals are exhausted.

But Judge Sidney Thomas of the 9th Circuit Court disagreed. “By deciding that judges are not constitutionally permitted to decide whether defendants are eligible for the death penalty, the Supreme Court altered the fundamental principles applicable to capital murder trials,” he wrote for the majority.

The circuit court's ruling came in a case involving Warren Summerlin, sentenced to death 22 years ago for rape and murder. His sentence was ordered to be reconsidered after it was found that the judge was addicted to marijuana at the time. He was later disbarred. This, Judge Thomas commented this week, “highlighted the potential risk of accuracy loss when a capital decision is reposed in a single decision-maker”.

But in a sharply worded minority report, Judge Johnnie Rawlinson objected to the idea that juries, rather than judges, should decide capital sentences. “Punishment concerns [of jury members] invade and befoul the work of guilt decision-making,” she wrote. “Jurors frankly admit that they consider punishment in deciding guilt, despite admonitions not to do so.”

If upheld by the Supreme Court, the circuit court's ruling could lead to the second-largest reduction in the death-row population (now at 3,500) since capital punishment, as then applied, was ruled unconstitutional by the Supreme Court in 1972. The only bigger cut came in January this year when George Ryan, then Republican governor of Illinois, commuted the sentences of 167 convicted murderers to life, citing the “demon of error” in the state's capital punishment system.

Lawyers disagree on the likely impact of this week's ruling, if upheld by the Supreme Court. Some argue that the 111 death-row prisoners in Arizona, Idaho and Montana who are directly affected would automatically have their sentences commuted to life. But the Arizona attorney-general's office says that new sentencing hearings, with juries, would be set up. So their reprieve may be short.

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New Orleans

A clean-up too far?

Sep 4th 2003 | NEW ORLEANS
From The Economist print edition

An everyday story of gays, mimes and tarot-card readers

OVER the Labour Day holiday, New Orleans's French Quarter played host to the Southern Decadence Festival. Nothing new there. Forty-seven folk were arrested for drunkenness and indecent exposure, and a Christian pastor, armed with a video camera, was issued with a summons after scuffling with the spawn of Satan in a bar.

The French Quarter may be world-famous for its shops, restaurants and colonial architecture, but it is also notorious for loose living. A block to the north of Royal Street's sleek galleries lies disreputable Bourbon Street, where locals would not be caught dead, and where bars employ dancers who go both topless and bottomless. Elsewhere in the Quarter, people eke out a living by selling art or tarot readings or by giving tours in mule-drawn carts.

All this may draw the tourists, but many locals feel it has all become too kitsch, too tawdry, too noisy and too smelly. They have pressed their case at city hall and in the Louisiana legislature. And these advocates of a primmer, more proper Quarter are prevailing.

Last summer, the city began evicting homeless people from Jackson Square, the Quarter's largest open space. Police also ousted those teenage charmers who attach bottle caps to the soles of their sneakers and tap-dance for spare change. The brass bands were sent packing, and the mimes were forbidden to wear make-up. Next to suffer were the fortune-tellers (who, according to the square's artists, were pinching all the best spots and “skankifying” the area with incense and candle grease), evicted from the shady eastern and western edges of the square and banished to a treeless area in front of the cathedral.

The artists are happy; the mimes are enduring in silence; the fortune-tellers are enraged. “It's like the Nazi thing,” says Joshua Aasgaard, aka Professor Purple, who reads tarot cards. The General Assembly of Psychics of Jackson Square has sued the city, but not to much purpose. In late July, as the psychics no doubt knew in advance, they agreed to a settlement that lets them keep working near the cathedral but debars them from the rest of the square.

Supporters of the fortune-tellers and the tap-dancers accuse city council members of wanting to turn the French Quarter into Walt Disney World or—horror!—featureless Atlanta. But the council is unrepentant. It has also restricted the size and operating hours of walking tour groups, after residents complained about commotion well into the night. And in September volunteers, recruited by the police, will start patrolling to spot graffiti, leaking hydrants and abandoned cars.

The strongest effort to keep things clean, however, has come from the legislature, where Christian conservatives carry much weight. Although such groups have little stomach for the largely heterosexual excesses of Mardi Gras and Carnival (in which men and women have traditionally exposed themselves in exchange for beads), they take greater offence at Southern Decadence, which is a gay festival. Organisers discourage public trysts, but not everyone listens. During the spring legislative session, religious-right groups circulated lurid videotapes of past festivals.

In response, the legislature passed a law mandating jail time for people who engage in sexual acts “for the purpose of gaining the attention of the public.” (No word on what happens to public fornicators who just got lost in the moment.) The bill took effect on August 15th, two weeks before Southern Decadence hit town. Civil-rights groups feared that police would ignore heterosexual scofflaws and single out gay men. Owners of hotels and restaurants, who have found the festival a boon to trade, feared it might put people off attending.

As it happened, neither fear was justified. More people than usual came to the festival. Nothing untoward happened during the parade. There were no arrests for public sex. And though Pastor Grant Storms was not allowed into the Good Friends Bar with his video camera, he might well have found nothing there worth shooting.

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Tax wheezes

Costa coffee

Sep 4th 2003 | SEATTLE
From The Economist print edition

Heard about the revolution that began with the Seattle Latte Party?

Get article background

SAM WEST, a 22-year-old from Bremerton, is just sitting down in the café of a Seattle bookstore, a steaming cup of mocha before him, when he is given some bad news. By the end of this month, his chocolatey coffee may cost him a dime more than the $3 or so he has already paid. “Really?” he says. “That's not right.” Like many other Seattle folk, he does not regard his daily caffeine shot as a luxury.

Mr West softens a little when told that the proceeds from the espresso tax—$7m a year—will go to help some 3,000 children get a pre-school education. That is the aim of Initiative 77, a ballot proposition which voters will consider on September 16th.

The new tax would apply to any drink with espresso in it, so lattes, mochachinos and countless other frothy concoctions would all be taxed. Why target people like Mr West? First, because there are so many of them. Seattle, birthplace of Starbucks, is to caffeine what Dublin is to stout. The cafés are packed with putative taxpayers.

John Burbank, a local economist, also claims that espresso is a relatively good thing to tax. Property taxes are regressive: they hit the elderly and the poor hardest. If the city were to tax coffee that people took home, that would merely persuade them to buy it outside the city. He also claims that the dime tax “is less than most people tip the *barista*,” sadly adopting Starbucksese (the only language where a small drink can be called a tall one).

Others disagree. Starbucks has invested a sensitively modest $15,000 in an effort to defeat the espresso tax. An executive with a coffee trade group told a Seattle newspaper he thought it was “nuts”. And while some coffee-shop owners support it, many do not. “Education is an issue for everyone—why single out espresso drinkers?” asked Nathaniel Jackson, owner of two Seattle coffee stands. He serves dozens of students and other impecunious sorts, who spend $3 for an espresso drink but also use that as an excuse to sit in his shops for hours, which he doesn't mind. The tax would also be an administrative burden, as the shop-owners would be responsible for collecting, tracking and paying it.

It could be a close vote, but taxing caffeine has unfortunate precedents. Remember the Boston Tea Party?

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Lexington

Those young Americans

Sep 4th 2003
From The Economist print edition

The debate about the American family is stuck in an ideological morass

"THIRTEEN", a controversial new film, starts with a disturbing scene. Two 13-year-old girls sit giggling on a bed. Then they take it in turns to slap each other in the face. Then they thump each other. They are so high on pain-killing drugs that they can't feel a thing—and they continue with their merry prank until one of them is almost knocked unconscious.

The film is based on the experiences of a young Californian. Nikki Reed co-wrote the script when she was only 13 and co-starred in the film (made a year later). And the story it tells is depressingly plausible: how a combination of peer pressure and loose family ties, rampant consumerism and readily available drugs can push a normal adolescent over the edge.

"Thirteen" highlights one of the most troubling problems in modern America: the parlous state of the family. Americans may regard themselves as a family-oriented bunch and look down on the ungodly Europeans with their low fertility rates, pornographic television and state-sponsored crèches. But the American family is under unprecedented strain. In 1960, 70% of families had at least one parent who stayed at home. By 2000, in contrast, 70% of families were headed by either two working parents or a working single parent. American parents spend 22 fewer hours a week with their children than they did in 1969.

Politicians have failed to adjust to the rise of what Karen Kornbluh of the New America Foundation, a Washington think-tank, dubs the "juggler family". Most children lack access to public education until they are six. Schools have not yet woken up to the fact that America is no longer an agricultural society: they finish at 3pm and close down for almost three months in the summer. Day care is expensive and uneven. It is harder to qualify as a manicurist than as a child-minder. After-school services are patchy. One in five 6-12-year-olds with working mothers comes home to an empty house.

Why is the land of motherhood and apple pie neglecting its young? Conservatives blame family breakdown: half of all marriages end in divorce and a third of children are born out of wedlock. They are particularly harsh on the "1960s culture" (which encouraged self-fulfilment at the expense of social responsibility) and on the welfare system (which, they think, still subsidises illegitimacy).

For "liberal" Americans the problem is unrestrained capitalism. Most families can make ends meet only if

both parents go out to work, they argue. But the American workplace is a demanding taskmaster. Americans work longer hours than Europeans and get shorter holidays; now they spend ever more of their evenings dealing with work-related e-mails and phone calls. The health-insurance and pension systems encourage employers to work their full-time staff to the bone, while shunting people who opt for flexible working hours into dead-end jobs with low wages and no benefits. More than a third of working parents have no entitlements to holidays or sick leave.

Give me a mother, an open school and some help

One of the many merits of “Thirteen” is that it recognises that these two arguments are not mutually exclusive. The heroine's mother is an ageing hippy who hooks up with a ne'er-do-well with a taste for drugs. Meanwhile, her estranged father spends the few moments he has with his daughter answering his cell phone and scheduling meetings. With no steady parental guidance at home, the young girl is prey to the enticing consumer culture of Los Angeles.

This might sound like common sense. But in the context of American politics it is uncommon wisdom. The American political class is so polarised by the culture wars that it cannot admit that the other side might be half-right.

Liberals will have no truck with the idea that the freedoms of the 1960s have a downside. Mention that young children suffer if their mothers spend too much time working, and you are a male chauvinist pig. Suggest that single-parent families are not ideal arrangements and you are accused of racism or blaming the victim. Liberals argue that all America needs to do is start providing better public day care—like those sensible Europeans—and all these problems will dissolve. As for the idea that the school day should be extended, so that children do not float round the streets at 3pm, try convincing the Democrats' paymasters in the teachers' unions.

From the other side of the spectrum, anti-tax conservatives fume about any legislation that smacks of “European-style interventionism”—even programmes like Arnold Schwarzenegger's, passed last year, to provide after-school care for poor children in California. Family-values conservatives worry that policies that make it easier to balance home and work will simply tempt more women into the workplace. And business conservatives don't want anything to get in the way of their God-given freedom to keep their firms running 24 hours a day.

Is there any way out of this impasse? There have been a few encouraging signs. In 1996, Bill Clinton broke with his party to sign a welfare-reform bill that reduced the incentives for poor people to have children out of wedlock (which seems to have had an effect on teenage birth rates). George Bush is trying to tweak the welfare system to encourage marriage. And others may copy Mr Schwarzenegger's initiative.

Yet the overwhelming impression is of a lack of radical ideas. Why not look at providing public education from the age of four (something Adam Smith would probably have supported)? Why not disentangle health-care benefits from companies, giving workers more freedom to choose where and how they work? Why not force the teachers' unions to lengthen the school day? The answer, of course, is that these ideas would stir up all sorts of trouble for politicians. Tell that to the children in “Thirteen”.

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Dealing with the past

That other September 11th

Sep 4th 2003
From The Economist print edition

Hulton Getty

Latin America is struggling to come to terms with its recent history. We begin with Chile, and move on to Argentina and Peru

Get article background

THE date that now haunts the world has long had a different meaning in Chile. September 11th 1973 was the day on which President Salvador Allende (centre, with glasses, above) was violently removed from power. The presidential palace was bombed by the Chilean air force, and he killed himself in the ruins.

Allende had been Chile's first socialist president. When elected, in 1970, he had preached a glowing vision of economic and social equality; but nationalisation and collectivisation brought economic disaster, while the draining of Chile's reserves led to roaring inflation. The cold-war climate, too, was against him. Although he had seemed a saviour to many at home, the United States could not stomach a Marxist in power in their hemisphere. American officials encouraged the coup, and rejoiced when it succeeded.

Allende's fall brought General Augusto Pinochet to power for 17 years. His dictatorship ushered in free-market reforms that led to Chile's rapid growth in the 1990s, but it also unleashed appalling violence. Around 3,000 died, and many more—possibly hundreds of thousands, according to Alfredo Jocelyn-Holt, an historian—were tortured, in order to install and keep General Pinochet in power.

Chile has now enjoyed 13 years of elected government, the last three of them under a socialist president, and half of all Chileans living now were not yet born in the year the coup occurred. But the divisions it caused have yet to heal. This became clear as the anniversary neared. Tentative plans for a cathartic national commemoration, bringing together the armed forces and human-rights groups, came to nothing. Even the centre-left coalition could not agree: leaders of the centrist Christian Democrats wanted no part, they said, of any homage to Allende.

President Ricardo Lagos is not surprised by this. He acknowledges that 30 years is too short a time to heal the wounds. Looking back from his socialist perspective, he sees the coup as the harsh price that Allende and his supporters paid for daring to dream.

The truth about the Pinochet dictatorship's human-rights violations has trickled out only slowly over the past 13 years. A National Truth and Reconciliation Commission reported in the early 1990s, but Chileans

have only just learned, for example, that the bodies of many of those who disappeared during the dictatorship were exhumed in the late 1970s and dumped in the sea.

Almost 1,200 people vanished, but fewer than 200 bodies have been recovered. The government recognises that the chances of finding more are slim, although it hopes that a new human-rights initiative, launched in August, may shed some light. In a bid to break the bond of silence between the murderers and their subordinates, it will offer the underlings reduced sentences, or even immunity, in return for information.

According to Mr Lagos, Chile has made good progress in bringing killers to justice. “It's often said that Chile hasn't done enough to punish the dictatorship's human-rights abuses, but the reality is rather different,” he argues, pointing out that there are now more than 300 cases of disappearances before the courts, and that the armed forces have at last accepted the need to submit to judges. So far, however, only a handful of former officers have been sentenced, and they are serving time either in a special, rather comfortable, prison originally run by the army, or in military barracks.

According to Verónica Reyna, a lawyer at FASIC, an ecumenical church foundation that defends human-rights victims, this relative impunity stems largely from an amnesty law left in place by the dictatorship. Some lower-court judges are side-stepping it by interpreting disappearances as a “permanent” kidnapping offence, but Ms Reyna thinks this could be overturned by the Supreme Court. Victims' families want the amnesty to be repealed, but, under Chilean law, this would be purely symbolic and would not have any retroactive effect.

Since 1998, when General Pinochet retired as army commander, relations between the armed forces and the government—as also between the armed forces and the public—have improved. But Raúl Sohr, a military analyst, wonders what the soldiers have done to deserve this. Beyond some well-turned declarations, he sees no sign of genuine repentance. If they were really sorry, he says, they would support reforms that curb their power, such as the restoration of the president's right to sack military commanders.

Chile's transition to democracy will not be complete until it reforms its constitution. Mr Lagos admits that this document “doesn't pass the test of democracy”. Among other things, it allows four of the nine non-elected senators who sit alongside the 38 elected members to be retired military commanders. It has also entrenched a binominal electoral system, under which each constituency elects two representatives to each house. This virtually ensures that one candidate from each of the two main coalitions is returned, and critics maintain that, by making results predictable, it fuels abstentions and undermines the legitimacy of democracy.

But reforming the constitution will be difficult. Each change requires majorities of up to two-thirds, for which the government needs the support of the opposition. And on many subjects they do not agree. Although almost everyone thinks the non-elected Senate representatives should go, views differ on whether, or how, their seats should be filled. Similarly, although most people feel that the president should be able to sack military commanders, this has become entangled in talks about the binominal system, on which there is no consensus. And Chile cannot recognise the jurisdiction of the newly established International Criminal Court without a change to the constitution, which the main opposition party opposes.

Allende's main political mistake was to try to force change more quickly than many Chileans could stomach. But Chile has now gone to the other extreme; 30 years after the coup, it is treading very carefully and very slowly.

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Dealing with the past (2)

A full stop removed

Sep 4th 2003 | BUENOS AIRES
From The Economist print edition

Argentina's courts may now be able to try soldiers properly again

Get article background

THE bloodiest military government in recent South American history held power in Argentina from 1976 to 1983. According to an official report, around 10,000 people died or disappeared. But, as the report itself points out, that number is not final. Human-rights organisations estimate the true figure at around 30,000.

AP

The mothers grow older, their cause remains the same

Once democracy was restored in 1983, the cases of human-rights abuses passed to military courts. When these proved reluctant to prosecute, the cases were moved to the civil justice system, which imposed prison sentences on five junta leaders. Trials of lower-ranking officers, however, caused increasing restlessness in the armed forces, and the nervous then-president, Raúl Alfonsín, pushed through two laws to halt the proceedings: the *punto final*, or "full stop" law (1986) and the *obediencia debida*, or "due obedience" law, which excused soldiers who were obeying orders. On August 21st this year, the Argentine Senate voted to annul both of them.

The annulment—a victory for President Néstor Kirchner, who had promised to get it—is certainly contentious, because the constitution does not seem to allow it, and the whole debate will almost certainly end up in the Supreme Court. But the trial-blocking laws have not, in any case, stopped all proceedings against Argentina's wayward soldiers. Trials are going on in several European countries, notably Spain, and Mr Kirchner has reversed a decree to allow extradition, though judges still sometimes frustrate him. Some courts are also staging "truth trials", where judges rule that the crimes must still be investigated before any amnesty is applied.

Several military leaders are also under arrest for the theft of the babies of the disappeared, which was excluded from the amnesties. On August 21st the Supreme Court rejected an appeal by General Jorge Videla, who is being tried for the systematic kidnapping and illegal adoption of children. The judges also confirmed the theory that disappearance is a permanent crime, remaining current as long as the victim's body has not been recovered.

Perhaps most important was the ratification, and insertion into the constitution, of the idea that a statute of limitations cannot be applied to war crimes and crimes against humanity. Congress had approved this rule in 1995; it was never ratified by the executive. But opinions differ as to whether it can apply

retroactively.

Around two-thirds of the public are keen to see the officers brought to justice, although they want them tried in Argentina, not in Spain. But some are busy trying to revive the theory of “two demons”, which finds a moral equivalence between the actions of the armed forces and those of the Montoneros, the left-wing guerrillas who tried violently to destabilise the regime. Although there is little sympathy for the guerrillas (the pardon last year of one of their leaders, Enrique Gorriarán Merlo, was very unpopular), few Argentines see equivalence there. Most of the violence came from the state, which had plans for systematic torture and killing. Successive military rulers, besides, argued that the guerrillas were merely “armed bands”.

What will the annulment of the two laws mean in practice? Horacio Verbitsky, a leading journalist, human-rights activist and former Montonero, reckons that 500 cases “at the most” will now come to trial. From the other side, Rosendo Fraga, a political analyst with close ties to the armed forces, says that between 5,000 and 6,000 officers could eventually be affected. But he thinks the army will stay quiet unless serving officers are prosecuted.

Will Argentina ever come to terms with its recent history? Mr Verbitsky admits it will take time. “In Germany,” he says, “there are few people left who were alive under the Nazis, but the issue is still alive. Many criminals escaped, but two decades later they started to be tracked down and judged. Maybe Germany is now more at peace with its past.”

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Dealing with the past (3)

The Shining Path revisited

Sep 4th 2003 | LIMA
From The Economist print edition

Peru discovers what happened during the Maoist insurgency

AP

ON AUGUST 28th, Peru's Truth and Reconciliation Commission presented a report to President Alejandro Toledo, Congress and the judges. This huge volume, the work of scores of academics and investigators, analyses for the first time the political violence of 1980-2000. It is a chilling chronicle. Using statistical projections to make up for the lack of firm evidence, it has established that more than 69,000 died or "disappeared" in the internal conflict between the security forces and the Maoist Shining Path rebels, more than double the generally accepted figure. Three out of every four victims were the downtrodden, excluded and impoverished inhabitants of the high Andes, most of them native Quechua-speakers.

In the course of its labours, which began two years ago and cost $13m, the commission exhumed dismembered bodies, investigated some of the several thousand mass graves on Andean hillsides, and collected 17,000 personal testimonies. Unusually, members had the official co-operation of the army (though not of the navy, whose marines were also called on to defeat the insurgency). They processed a mountain of documents detailing military strategies used to counter subversion, and talked to hundreds of now-jailed insurgents from Shining Path and the smaller, marginally less bloodthirsty Tupac Amarú Revolutionary Movement (MRTA).

Their report spreads the blame on all sides. The primary culprits for the years of violence, it says, were the Shining Path rebels under their founder and leader, Abimael Guzmán. But the governments of Fernando Belaunde (1980-1985) and Alan Garcia (1985-1990) both bear responsibility for the state's inadequate response to the violence. The Belaunde administration, in particular, is condemned for its combination of ineptitude and military excesses. But it is the regime of Alberto Fujimori (1990-2000) that is singled out as criminally responsible for the death squads and extra-judicial killings masterminded by the National Intelligence Service and its unofficial head, Vladimiro Montesinos, now jailed like Mr Guzmán.

Politicians and military men have scuttled to defend themselves. The commission's members, mostly respected academics and human-rights activists with leftist sympathies, have been called "reds" and communists. Critics accuse them of being tougher on the Peruvian armed forces, obliged to defend a threatened democracy, than on the bloodthirsty insurgents who sought to take over the state. The report was a "Marxist ploy to undermine Peru's heroic armed forces", said one congressman. But Mr Guzmán of the Shining Path is equally incensed by it. Both sides have seized on the hugely contentious figure for the dead as a sign that the report is not to be believed.

The only Peruvians who seem to have drawn some immediate comfort from these findings are the survivors and relatives of the victims of violence. In patient night-time vigils around Peru and in a moving ceremony on August 29th in the Andean city of Ayacucho—the centre of the Shining Path's vicious campaign of terror—relatives of the dead, many clutching old photographs, have laid their ghosts to rest.

But not completely. Peru's public prosecution service must now decide whether to open criminal investigations on some 120 groups and individuals identified as having violated human rights. Bitter arguments will dominate the coming weeks and months. But, as the commission chairman says, the worst thing that could happen to Peru would be if this painful report were consigned to the waste bin.

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Sharing water

An underground concordat

Sep 4th 2003 | SÃO PAULO
From The Economist print edition

Four countries agree on how to share an aquifer

Get article background

RIVERS draw notice, provoke fights and inspire treaties among countries that share them. Not so aquifers, natural reservoirs that lie underground and are virtually ignored by international law. The four South American countries that share the vast Guaraní aquifer recently decided to head off conflict before it could start, by reaching an agreement.

The Guaraní, a sandy sponge beneath a basalt shell, sprawls across 1.2m square kilometres (460,000 square miles) and stores enough fresh water to supply 5.5 billion people with 100 litres a day per person for 200 years. It is so big that there is no real competition for its water; pollution in one part of the aquifer can take thousands of years to taint another.

Yet there are reasons to start worrying now. Some cities in São Paulo state, Brazil's industrial centre, depend on the Guaraní aquifer. One of them, Ribeirão Preto, has pumped so much water out that the aquifer's level has dropped 60 metres in the area since the 1970s. In western Paraguay, farmers are chopping down forest in an area that collects much of the water for replenishing the aquifer. Owners of thermal spas in northern Uruguay fret that their Argentine competitors will extract too much.

So now the Guaraní countries are doing something. With $13m from the Global Environment Facility, which is financed mainly by rich countries and run in this case by the World Bank, they recently set up a small secretariat in Montevideo, Uruguay's capital. Its first task is to study the aquifer, whose full extent became known only in the 1990s; its second is to think how to manage it jointly.

The Guaraní partners will have to assign some economic value to the water, which none do now. Wells will have to be registered and, perhaps, limited. Pollution will have to be policed. The project is still far from producing a treaty or even a common agency to manage the aquifer. But, says Ana Luiza Freitas, a hydrologist at Brazil's National Water Agency, it is “a seed that will grow.”

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Public finance in South-East Asia

Hey, big spender

Sep 4th 2003 | BANGKOK
From The Economist print edition

AFP

Narrow tax-bases and big stocks of debt mean that South-East Asian governments have little to spare for the things that matter

IN SOUTH-EAST ASIA, as in the rest of the world, the words downturn and deficit go together. Take Singapore, still suffering from the global electronics slump and an outbreak of the respiratory disease SARS earlier in the year. It has just announced a stimulus package which will widen the budget deficit to 1.4% of GDP—a bold step in a country that was running surpluses of as much as 10% of GDP before the 1997-98 Asian financial crisis. Most other countries in the region have been running deficits every year for the past six years. The good news is that they are all still solvent. The bad news is that they have less room for fiscal manoeuvre than appearances suggest—and not that much to show for the money they have already spent.

On the face of things, governments in the region are correctly reining in deficits as their economies improve. A booming economy, and the extra tax receipts that come with it, should allow Thailand to balance its budget next year, four years ahead of schedule. The country's stock of public debt peaked at 58% of GDP last year, and is now declining again, prompting Fitch, a ratings agency, to upgrade the country's bonds this week. Indonesia's debt has fallen far more dramatically, from 100% of GDP in 2000 to 70% today. Even the Philippines, which has struggled to balance its books for much of its independent history, and whose deficit was 70% bigger than planned last year, should meet its target in this one.

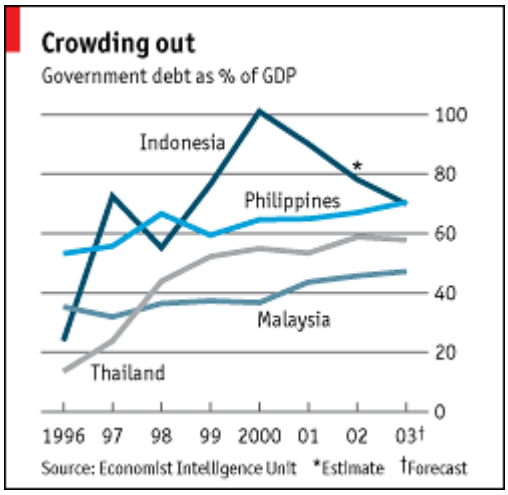
But the picture is not as rosy as these figures might suggest. The dramatic improvement in Indonesia's finances, for example, stems chiefly from the lucky combination of a growing economy, an appreciating currency and falling interest rates. The government certainly helped achieve those things with sound macroeconomic management and politically costly spending cuts, and has also protected against future fiscal crunches by diversifying Indonesia's sources of funding and evening out the maturity of its debts. Nonetheless, a darkening of today's benign economic outlook would rapidly lead to a quick deterioration in the public finances. The Philippines undergoes such reversals all the time: thanks to unexpected fluctuations in tax receipts, the budget deficit came in at a surprisingly low figure in 2001, ballooned in 2002 and (so far) has shrunk again slightly in 2003.

A big part of the reason for this is that governments in South-East Asia collect relatively little in taxes at the best of times, and therefore have little fiscal leeway. The Philippines' debt stock of 70% of GDP is no more than that of many rich countries. But the Philippines only collects 14% of GDP in taxes, compared

with around 45% in most of Europe. It also has little discretion over how the money is spent. Thus, 28% of government expenditure will go on interest payments this year, 34% on wages and 18% on transfers to local government—leaving just 20% of expenditure or 3.5% of GDP at the government's disposal for everything else. Assuming the government continues to run an army and to provide basic services to an expanding population, there is almost no wiggle room at all. Similar, albeit slightly less grim, calculations apply to most other countries in the region.

What is more, the true extent of many countries' liabilities does not show up in the public accounts, thanks to all manner of off-budget spending schemes. Thailand may be the worst offender in this respect. The government has been brow-beating state-owned banks into increasing lending—a policy that may land taxpayers with a big bill in the future, as it has done, say, in Japan. The government may also have to recapitalise a scheme establishing a 1m baht ($24,000) micro-credit fund in every village in the country, although Suchart Jaovisidha, the finance minister, says the default rate is minuscule. Then there are the losses that may arise from the state-owned Thai Asset Management Corporation, the new Vayupak investment funds, and so on and so forth. Supavud Saicheua, an economist at Merrill Lynch Phatra, a Thai investment bank, estimates Thailand's off-budget liabilities at 6% of GDP. It is not the only offender: Malaysia recently unveiled a stimulus package of 7.3 billion ringgit ($1.9 billion), of which only a third will appear in the government's accounts.

What governments spend their money on, of course, is just as important as how much they spend. In one sense, South-East Asia's parade of deficits is misleading: since the crisis, the increased cost of servicing the stock of debt has accounted for most of the deficits in Indonesia and the Philippines. So there is no net fiscal stimulus—in fact, spending has been cut quite steeply. Indeed, one of the ways in which Indonesia has managed to trim its deficit is by failing to spend money earmarked for development projects, even when it comes in the form of concessionary loans. Such parsimony is counterproductive, especially considering that the government still found the money last year to fork out 1.8% of GDP on inefficient fuel subsidies.



Other countries have genuinely boosted spending in the hopes of an old-fashioned Keynesian stimulus. Singapore, for one, is accelerating infrastructure projects as a prop to the construction industry, even though its economy is so open that much of the benefit will probably go to foreign workers and suppliers. In the long-term, however, expenditure on health and education provides the best return on investment for developing countries. According to the Asian Development Bank, only Malaysia has significantly increased expenditure in those areas since the crisis. Indonesia's extra spending, on the other hand, is going straight to its army.

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Myanmar

Hungry for change

Sep 4th 2003 | BANGKOK
From The Economist print edition

Aung San Suu Kyi's fate gets ever murkier

Get article background

FOR military-ruled Myanmar, it is either the best of times or the worst of times, depending on whom you believe. The State Peace and Development Council (SPDC), as the country's junta styles itself, has detained Aung San Suu Kyi, the country's most prominent dissident and a winner of the Nobel peace prize, at a secret location for over three months. Now she has started a hunger strike, according to the American government, which slapped strict sanctions on Myanmar last month in protest at such repression. The generals, however, say that Miss Suu Kyi is fine, and that Myanmar will soon be on the road to democracy. They even have a “map” to take the country there. But they have not yet made clear whether they will allow Miss Suu Kyi along for the ride, nor how long the trip will take.

Indeed, the more time passes, the less the outside world knows about Miss Suu Kyi's circumstances. After her arrest on May 31st, both a UN envoy and a Red Cross delegation were allowed to visit her. But no outsider has clapped eyes on her since late July. The British government said at one point that she was being held in Yangon's grim Insein jail; now, nobody knows. The only effective way for the regime to quash reports like the American one would be to release Miss Suu Kyi—something it perpetually claims to be on the verge of doing.

In the meantime, any talk of restoring democracy is meaningless without the participation of Miss Suu Kyi and her party, the National League for Democracy. The NLD won a landslide victory in an election in 1990 that the junta subsequently annulled. The SPDC now says that a convention is needed to draft a new constitution, which would eventually pave the way for fresh elections. All of this is nothing new: from 1993 to 1996, a similar body mulled over a new constitution at the SPDC 's behest. But it managed to review only six out of 15 chapters of the draft during its four-year existence. Anyway, the NLD walked out of the convention in 1995, because the SPDC had rigged procedures against it. Judging by that precedent, the SPDC's new proposal is at best an effort to defer elections into the distant future. At worst, it is an attempt to produce a toothless constitution and rubber-stamp parliament to confirm its rule.

Optimists argue that the announcement last weekend of the “road map” by Khin Nyunt, the regime's chief apologist and intelligence boss, gives it marginally more credibility. He recently took on the job of prime minister—an apparent promotion. But at the same time he also lost his position as number three in the junta, which almost certainly carries more power. The gloomiest interpretation of these comings and goings is that the most conciliatory members of the top brass are being shifted into what are essentially public-relations jobs, while the hardliners are left to get on with the real business of repressing Myanmar.

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Indonesia

Basyir bashed, but lightly

Sep 4th 2003 | JAKARTA
From The Economist print edition

The government is failing to grapple with terrorism. America hasn't helped

Get article background

THE ambiguous verdict in the trial of the radical Islamist Indonesian cleric Abu Bakar Basyir—on September 2nd, he was acquitted of being a terrorist but convicted of subversion and sentenced to four years in prison—poses a big question about Indonesia's war on terror groups. Ministers claim there is no shortage of political will to tackle Jemaah Islamiah (JI), the South-East Asian Islamist terror network with links to al-Qaeda that Mr Basyir was accused of leading. But President Megawati remains silent on future policy, and no action is planned against the handful of militant Islamic boarding schools that have produced most of the alleged JI operatives.

Meanwhile institutional frailties and turf wars between competing intelligence agencies add to the difficulties. It is hard to argue with the judges' claim that an inadequate case was made to convict Mr Basyir of being the head of JI or of participating in numerous plots over the last few years: only one witness was found to confirm this. The prosecution was inadequate at best, although the judges themselves—who have a key examining role in Indonesian law—did not perform much better. With the government in Jakarta relying on the courts to deal with JI, this weakness is a real handicap. Concerns about political interference also arise because the verdict appeared too neat a compromise between appeasing the mostly foreign anti-JI crusaders and the vocal domestic Muslim lobby (though it appears to have angered both of them). Indonesia could have received more help from overseas. Singapore and Malaysia allowed detainees to testify by videoconference. But America, which is holding several key suspects, declined to co-operate.

Considering that America is now holding JI's alleged operations chief, Hambali, future convictions seem uncertain unless there is a change of heart there. But JI is unlikely to stand still. Recent research, particularly by one think-tank, the International Crisis Group, suggests JI will have little difficulty replacing Hambali and other detainees, and that it is a larger, more closely-knit organisation than previously thought. The lack of action against the religious schools that are the JI's breeding-grounds points to the network still being able to lay down firm foundations for the future. When Mr Basyir is freed—which with time off for good behaviour and detention pending trial could be in only a couple of years—he is likely to find JI very much alive and kicking hard.

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Terrorism in India

Hydra-headed

Sep 4th 2003 | DELHI
From The Economist print edition

A war of many battlefields

Get article background

BLESSED with non-stop television news, India is cursed by depressing pictures to fill it. Last weekend they included live coverage of a siege and shoot-out in Srinagar, summer capital of the Indian-controlled state of Jammu and Kashmir. One of those killed by the security forces was later identified as “Ghazi Baba”. His death had an immediate—and bloody—impact in Kashmir. But for India it was a triumph in its anti-terrorist war, which this week intensified on a number of fronts.

Ghazi Baba was allegedly the commander in Indian Kashmir for Jaish-e-Mohammad, an extremist Islamist group fighting for the area's incorporation into Pakistan. India calls him the “mastermind” of a number of atrocities, notably murderous attacks in 2001 on the state assembly in Srinagar and the Parliament in Delhi.

That was not the only success claimed by India's security forces this week. On September 1st, four people were arrested for involvement in a two-bomb attack in Mumbai a week earlier, in which 52 people were killed. The arrests seemed to bolster police theories about the crime: that, like five other, smaller bombings in Mumbai since last December, it was perpetrated by Muslims in revenge for communal violence in the state of Gujarat last year; that much of the planning had been undertaken in Dubai; and that there were links with another extremist group, Lashkar-e-Taiba, and, through it, with the Pakistani intelligence services.

Those detained, however, were depicted as “foot-soldiers”—bomb-planters deployed by more sinister conspirators. The police believe Mumbai was not the only target; the plan was for co-ordinated attacks in more than one city. On August 30th, a huge stash of explosives was discovered at Delhi's main railway station.

Surprisingly, this evidence of a concerted terrorist onslaught on Indian civilians did not provoke the usual diatribes against the terrorists' supposed sponsors in Pakistan. Instead, Indian officials privately suggested that the slow crawl towards normalised relations—initiated by India's prime minister, Atal Behari Vajpayee, in April—would be allowed to continue, at least for the time being. Pakistan's arrest this week of three army officers with alleged links to terrorist groups may help.

But “normalisation” should not be mistaken for a peace process. Mr Vajpayee has ruled out high-level talks while the violence continues. And, supporting Indian boasts about his importance, Ghazi Baba's death unleashed a new wave of violence in Kashmir. More than 30 people died on the first three days of September. Parts of the main highway linking the north and south of the state were blown up.

Against this backdrop, the prospect of talks between separatist groups and the Indian government has faded. Moderate separatists seem to have been eclipsed. A 14-year old insurgency, which poisons relations with Pakistan and brings the scourge of terrorism to television screens and cities, has been resumed in earnest. It is all depressingly familiar.

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Japan

Keeping Koizumi?

Sep 4th 2003 | TOKYO
From The Economist print edition

Internal rivals are trying to unseat the prime minister and halt his reforms

Get article background

AFP

Koizumi faces challenges

THE opposition is bracing for a general election, perhaps later this year, but a potentially more pivotal contest will take place inside Japan's ruling party on September 20th. That is when members of the Liberal Democratic Party (LDP) will vote on whether to grant Junichiro Koizumi another term as their party's president, and thus as Japan's prime minister. This week, several rivals announced that they will challenge Mr Koizumi, including Shizuka Kamei, who once chaired the LDP's powerful Policy Research Council and who jointly commands one of the LDP's biggest factions. Although Mr Koizumi's opponents are attacking his economic policies, they are also fighting another, less public battle: over starkly different visions of how Japan's perennially ruling party should run the country.

In one corner is Mr Koizumi, who champions an approach more like that of a western parliamentary democracy. He wants the prime minister to have much more scope to set policy, to choose cabinet ministers, and to let them stay together long enough to get things done. Although Mr Koizumi advocates painful economic measures, his message in April 2001 to the local LDP members who made him prime minister was that economic reforms would not be possible without an overhaul of the ruling party's gridlocked political structure. One of his best slogans was “Change the LDP, change Japan”.

A cabinet-centered system would be a radical change for Japan, where the LDP's leaders have usually ruled as a group from behind closed doors. Before Mr Koizumi took office, prime ministers reshuffled cabinets frequently, as part of a revolving-door promotion scheme to keep the LDP's seniority system running smoothly.

Since Japanese politicians, including Mr Koizumi, nearly always compromise, the LDP may yet avert a decisive showdown over these issues, with Mr Koizumi winning a new term by making concessions. This week, however, he seemed to be doing a good job of using his popularity to prevent the LDP's biggest factions from uniting against him. Not only are candidates from several factions running, but, even within those, MPs have split into pro- and anti-Koizumi camps.

This week the biggest faction, led by Ryutaro Hashimoto, gave up trying to unite behind a single candidate. Takao Fujii, a former transport minister, will be the faction's only challenger, but he did not win its undivided support. Following the LDP's leader in the upper house, Mikio Aoki, a large group of Hashimoto-faction MPs say they will back Mr Koizumi instead. Mr Koizumi has similarly managed to divide another big faction led by Mitsuo Horiuchi, who said this week that he, and much of his faction, will back the prime minister. That left dissenting members scrambling this week for an alternative candidate.

Mr Koizumi has not won yet, however. Along with Mr Fujii and Mr Kamei, he already faces at least one other challenger, even if the Horiuchi faction does not produce one: Masahiko Komura, a former foreign minister with a small faction of his own. Against three or more challengers Mr Koizumi may struggle to win a majority in the first round of voting. In a second-round run-off, local LDP members, who were key to Mr Koizumi's victory in 2001, would have no say. Left on their own, the MPs might unite behind a single rival.

Many of them fear, however, that the LDP would lose many of its seats, and perhaps even power altogther, if it were to fight a general election without the popular Mr Koizumi. If he can exploit this fear to win through, he may yet strike an important blow for political reform.

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China

Danwei people become citizens

Sep 4th 2003 | BEIJING
From The Economist print edition

The apparatus of state control of private life is going

REGULATIONS are at last catching up with the reality in China that the state, once all-intrusive, is losing its relevance. On September 1st, Beijing joined the ranks of Chinese cities that allow residents to apply for passports without written permission from a state employer or the police. From October 1st, China will no longer require citizens to obtain permission before getting married or divorced. And a new policy announced last week bans employers from blocking owners of state-assigned housing from selling their properties.

These measures sever some of the last remaining bonds that once tied almost every urban resident to a *danwei*, or government-controlled work unit. The *danwei* provided employment and welfare benefits such as free housing, schooling and health care. It also played a vital role in ensuring that citizens obeyed the Communist Party's rules. The *danwei* monitored employees for signs of political waywardness. Any grumblings about the party would be recorded in a file, where a black mark could have a host of repercussions, from denial of promotion or better housing to imprisonment.

These days, few Chinese worry about what is in their files. As state-owned enterprises have crumbled and private enterprises have flourished, many have left the stifling world of the *danwei*. The files are often still kept by government labour bureaus, but are rarely referred to.

It was only in 2001 that China took tentative steps to scrap the requirement that *danwei* approval—or if a citizen has no state-owned *danwei*, police permission—be given for the issuing of a passport. Last year Shanghai joined the handful of cities allowed to try this out. Officials say that this goup, which Beijing has now joined, will grow to 100 cities by the end of the year. By 2005 every city in China, officially 658 of them, is supposed to be included. According to a Chinese press report, Beijing's passport office handled double the usual number of applicants on the first day of the new system. Fuelling the demand is the burgeoning enthusiasm of urban Chinese for overseas tourism.

The forthcoming change in China's marriage regulations will be greeted with no less joy. The power of *danwei* managers—or government-controlled neighbourhood committees for those without a *danwei*—to block marriages or divorces is widely resented. In the heyday of the *danwei*, permission might be withheld because of an applicant's political views. More recently a *danwei* might have vetoed a marriage because of concerns about providing housing (a practice that the *danwei* abandoned only four years ago). Bribery was often the only way of getting permission. From October 1st, the *danwei* will no longer be involved and couples will not have to undergo health examinations before getting married.

Danwei control over urban residents loosened considerably when housing was no longer simply assigned. Since getting good housing was of such importance, *danwei* employees were once fearful of antagonising their bosses and often devoted considerable energy and resources (in the form of bribes) to securing a good allocation. But housing reforms in the 1990s did not entirely release the *danwei*'s grip. Although employees were no longer given free housing, and instead had to buy or rent it, they often could not resell without their *danwei*'s permission.

According to last week's directive, the *danwei* can no longer stop them except for legal or contractual reasons (such as the property being under joint ownership of the *danwei* and the occupier). Beijing has announced that, from October 1st, 800,000 homes that were once owned by central government organisations and have been sold to their occupiers may be put on the market, a move that could double the amount of second-hand housing available in the capital.

China's official media have lauded these changes. The English-language *China Daily* newspaper said the

new regulations addressed “our time's need for empowering, or returning rights to, the individual and limiting public powers”—extraordinary language in a country where the government usually places little stress on individual rights. The government is acutely aware that its ability to maintain political and social control is being challenged by the *danwei*'s decline. Neighbourhood committees—though revitalised earlier this year in the effort to monitor and control SARS—have no chance of filling the gap. The urban population has become too mobile and too independent-minded to build up the same kind of dependency on officialdom that once bound it to the *danwei*. Chinese often speak of their transition from “*danwei* persons” to “members of society”. That metamorphosis is nearing completion.

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Correction: Haruho Fujii

Sep 4th 2003
From The Economist print edition

The president of the Japan Highway Public Corporation is Haruho Fujii not, as we said in our story of August 28th 2003, Haruho Fukui.

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Iraq after Ayatollah Hakim's murder

They came to bury him, and many to praise him

Sep 4th 2003 | NAJAF
From The Economist print edition

AP

The car-bomb in Najaf has raised the spectre of revenge-killing. The Iraqis insist they can deal with the consequences themselves

Get article background

BEFORE they joined the funeral procession of their leader, Ayatollah Muhammad Baqer al-Hakim, the Shia cleric who was killed, along with more than 100 others, on August 29th, militiamen from his Badr Brigade went hunting Baathists in the backstreets of Najaf. A dozen suspects were captured, in a shooting match outside the home of the alleged leader of Najaf's Baathist underground, Karim Ghaith. Three men were killed. Mr Ghaith himself was captured, and his four-storey villa torched. The militiamen then launched a dozen more raids, before they went off to police the funeral with banners declaring that the life of their leader would be avenged in Baathist blood.

When Baghdad fell in April, vengeance was sparing. The car-bomb that blew up Mr Hakim at the Imam Ali shrine in Najaf has raised the spectre of revenge. The investigation into the killing has yet to come up with culprits; a tape in which Saddam Hussein declares that neither he nor his people were responsible for the attack is thought by the CIA to be by him. No matter: most Shias assume that the Baathists in collusion with Sunni extremists from al-Qaeda were involved. Lawyers fear that, without due process, the retribution may mirror the slaughter in 1991, when Shia militants murdered Baathists, and their uprising collapsed in blood and chaos.

Is the thirst for bloodletting the way the ayatollah would like to be remembered? His acolytes portray him as the cleric who mediated between Iranians and Americans, between Shias and Americans, and between Shias and Sunnis. He may have aspired to a theocratic state in the future, but in the short-term he used his religious authority to keep the lid on the Pandora's Box that is Iraq.

When Iraq's ayatollahs refused to meet the Americans, he helped to placate the secretive world of the Najaf theological seminaries. He participated in the political process led by Paul Bremer, the American administrator, ensuring that the Governing Council had Shia legitimacy. When America ordered his 10,000 militiamen in the Badr Brigade to be disarmed, he ordered them to keep a low profile.

Since its founding in Iran in 1982, the Supreme Council for Islamic Revolution in Iraq (SCIRI) has been

less a party than an umbrella of groups ranging from reform-minded intellectuals to ruffians trained by Iran's Revolutionary Guards. With Mr Hakim no longer preaching patience, Najafis fear that the party could go back to its roots, and to its original mission, which was to expand the late Ayatollah Khomeini's Islamic realm to Iraq. The paramilitaries policing the funeral bore a striking resemblance to the young Iranians who police religious observance there.

Party leaders did their best to follow in Mr Hakim's pragmatic footsteps. Within hours of the interment of the ayatollah's pen, watch, and wedding ring (nothing else survived the blast), SCIRI announced that his brother, Abdel Aziz, a member of the Governing Council, was their new leader. But one hour later, other senior members were demanding to be heard.

They included Muhammad Taqi Mullah, who is called defence minister by his followers. In an impromptu midnight press conference, surrounded by armed guards, he praised the brigade, and demanded that the Americans cede the job of security. Could America, he asked, organise a funeral, providing water, food, and transport to hundreds of thousands of mourners without incident? No, but his black-shirted Kalashnikov-wielding militiamen had. We need local fighters, he said, who know where the criminals live.

American military spokesmen respond that it is the Shia groups themselves who cannot protect their people. After all, the clerics had asked American soldiers to keep clear of the shrine, where the car-bomb was parked, so as not to offend religious sensibilities. Why did the Shia authorities fail to enforce parking restrictions during Friday prayers?

After four lethal car-bombs in less than a month—the latest targeting a police training college and the headquarters of the acting chief of Iraqi police—many Iraqis fear that America is losing the initiative. The attacks on coalition troops, and the sabotage of oil pipelines, are daily proof of the failure to crush or contain the resistance.

Even so, Iraq is a far more ordered place than it was two months ago. The first fruits of American rule are beginning to show. Iraqis have cleared the armoured detritus of war, swept the streets, and even painted the roadsides of Baghdad's main streets. Builders add floors and extensions to people's houses, without the constraints of planning permission. The law courts are once again functioning, with a special court to try Baathist crimes. Attracted by duty-free booty flowing through the open borders, consumers go on whatever spending spree they can still afford after the battering of 12 years of sanctions.

Yet the fear of daily attack is driving the American troops back into their heavily garrisoned barracks. In the capital, Mr Bremer's men have erected a Berlin Wall of concrete, cutting off a huge swathe of the city that formerly encompassed important ministries, and significantly extending the walls of Saddam Hussein's already vast presidential complex. Expatriate civil servants drafted in to man the Coalition Provisional Authority can spend weeks in Baghdad without leaving the compound.

Hurry up, and be sovereign

The Americans, perhaps recognising their isolation, are showing a new willingness, indeed eagerness, to bring in the United Nations, and to accelerate the transfer of power to the Iraqis. Mr Bremer returned from his holiday vowing not just to yield sovereignty, but to thrust it on the Iraqis. The day he arrived back, the bumbling Governing Council unveiled its first cabinet after weeks of wrangling, and American hesitation, had kept it under wraps. The cabinet contained no prime minister, or defence minister, and Mr Bremer had the final word on each appointment: the new interior minister, Nouri Badran, is picked from the ranks of the Iraqi National Accord, a CIA-backed exiled group.

Nevertheless, four months after America's invasion, Iraq has a government that is promised day-to-day administration of the country's affairs, including its security. Your correspondent, travelling on September 1st on the road from Baghdad to Najaf, found all but one of the five checkpoints manned by Iraqis. That night, an American soldier was shot dead at the fifth.

Ahmed Chalabi, the council's current president (the job rotates monthly between the nine appointed members) used his inaugural address to demand yet more power. Security, security, security, he chanted. Remarkably, Mr Bremer appeared to comply. He announced a doubling of Iraq's security forces to 60,000 with a fast-track training programme graduating policemen in two months, not the international standard of three. Human-rights groups groaned.

Still the policemen can't come fast enough. The emergence of the Badr Brigade on Najaf's streets, often

side-by-side with the new policemen, and the open display of arms by political groups in the south, threatens to scupper moves to centralise law and order. Badr Brigade commanders say they want to be integrated into senior posts in the security forces. But their presence is tempting rival Shia groups, vying for influence, to set up checkpoints of their own. As they fan out across southern Iraq, there is a risk of minor skirmishes escalating into civil war.

AP

Fast-track policemen still need strong teeth

Mr Hakim's followers argue that the huge turnout of men beating their chests and women pummelling their faces in the searing heat was proof of their leader's popularity. But many came not to praise Hakim, but to bury him. The followers of a rival clerical family, the House of Sadr, said they were mourning the many people killed at the shrine, adding almost as an afterthought that they included Mr Hakim. On September 3rd, Muqtada al-Sadr, a radical young cleric, posted 300 militiamen outside his Najaf home. American forces encircled them, but did not open fire.

So far predictions of sectarian strife have proved to be alarmist, and are without historical precedent. But if tensions increase, the council, with its careful divisions along religious and ethnic lines, could as easily be the midwife of a divided Iraq as the model of a pluralist civil society. For the first time in modern Iraq, the Shias have a cabinet that mirrors their numerical strength. But critics say the split of the cabinet into five Sunni Arabs, five Kurds and 13 Shias reinforces and imposes a sectarian mindset, which could be dangerously self-fulfilling.

Again Mr Hakim's assassination could prove critical. He had stepped in as the linchpin between the American army and the Shia majority after the coalition's first choice for middleman, Abdelmajid al-Khoi, was stabbed to death in April, also at the Imam Ali shrine. Unlike Mr Khoi, Mr Hakim had sought to distance himself from the Americans, opposing the occupation and calling for resistance, albeit civil not armed. But his actions spoke louder than his words.

Now, with such low life-expectancy, what Shia leader will willingly step in as the new mediator? Muhammad Bahr al-Uloum, a possible clerical contender, froze his membership of the council within hours of the Najaf blast. Even the appointment of his son as oil minister could not tempt him back.

With Shia groups flexing their muscles on the ground, and the interior minister anxious to assert his authority, there are questions on the role of foreign troops, whether they are American or not. And will United Nations soldiers fare better than coalition ones? A cleric from the Shia establishment, the *hawza*, suggested that “UN peacekeepers would be an army not of occupation, but of peace.” But it is hard to see the militiamen now withdrawing, unless they are forced to. “A foreigner is a foreigner,” said the Badr Brigade's Mr Mullah. “They don't understand our language and customs. Iraq's security has to be in the hands of Iraqis.”

The common enemy

What could engage the Shia militia on the Americans' side is the belief that America is still fighting its war against the Baath and, more broadly, Sunni extremists. The Shias also accept, with alacrity, the link between the Baath and Osama bin Laden's al-Qaeda, and the responsibility of both for the bomb that killed Mr Hakim. FBI officials, quoted in the American press, fingered the Baath and Mr bin Laden with remarkable speed.

The al-Qaeda link, as many Americans admit, is speculation. “Are they saying that because we have a big bomb it must be al-Qaeda?” asked Major Michael Laambs, an American officer in Najaf. Others question whether al-Qaeda would have had time to set up a terrorist network, even given the porous borders. But southern Iraqis appear to lap up the allegations, ever ready to accuse the puritanical Sunni sect of the Wahhabis, whose incursions over the Saudi border to attack Shia shrines in Iraq date back to the 18th century.

Could Mr bin Laden's men now serve as the Baath's foot-soldiers? An anti-American coalition is no less plausible than the Shia's shaky acceptance of the Anglo-American forces. Both inside and outside Iraq, reports are growing that the Baath is reconstituting itself, after melting away before the Anglo-American advance.

In southern Iraqi cities, neighbours speak of night-time gatherings of Baathist leaders, and of arms smuggling. The Najaf attack, says a UN security adviser, has the same fingerprints as the bombing of the UN in Baghdad. Foreign Islamists, he adds, are supplying suicide vests assembled outside Iraq. A new coalition of this kind may be the one that threatens.

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Iran and Ayatollah Hakim

Their man in Iraq

Sep 4th 2003 | TEHRAN
From The Economist print edition

Yet, Iran and the United States share an interest in Iraqi stablity

THE Iranians, too, held three days of mourning. Ayatollah Muhammad Baqer al-Hakim was an Iraqi with special Iranian status. His family had strong ties to Iran's clerical leaders, and he had raised his own army of exiles to help Iran fight Iraq in the 1980s. Having invested more than 20 years in the ayatollah, Iran considered him a trusted ally, albeit one who had begun to distance himself from his patrons.

The ayatollah left behind a well-oiled machine. The Badr Brigade, the militia of 10,000 troops that he had created with Iran's help, made sure that the vast funeral procession went smoothly. America has long been suspicious of the brigade's political arm, the Supreme Council for Islamic Revolution in Iraq (SCIRI), and its ties to Iran. But American charges against Iran for “meddling” in Iraq have recently faded. The emergence of Ayatollah Muqtada al-Sadr, a much more radical young Iraqi cleric, makes SCIRI look moderate.

When Mr Sadr visited Iran in June, he is believed to have been sternly told not to sow disunity among the Iraqi Shias. All the same, Iran will seek to keep its options open, retaining influence with whoever emerges as Shia heavyweight.

Though neither side wishes to admit it, the United States and Iran, which sees itself as a regional power not to be ignored, share some common interests in Iraq. As much as Iran resents America's occupation, it too wants to see a unified, reliable leadership of the Shia majority, and some semblance of stability in Iraq as a whole. America could use Iran's help, if it were willing to ask for it—and if Iran were willing to oblige.

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Hizbullah and Israel

An end to resistance?

Sep 4th 2003 | BEIRUT
From The Economist print edition

If captives are exchanged, Hizbullah may decide to be more respectable

AP

Nasrallah's spirit and passion

Get article background

WITH so many fires raging in the region, Middle Easterners may be forgiven for failing to notice when one begins to sputter out. Conflict has simmered for decades along the Israeli-Lebanese frontier. Despite a drop in heat since Israel ended its 22-year occupation of southern Lebanon in May 2000, tensions still flare. This week, a spate of tit-for-tat attacks between Israel and Hizbullah, the Shia militia, again threatened to spiral into a wider conflagration, raising the spectre of rockets raining on Israel and Israel clobbering Syria in return. At the same time, both sides are hinting at a cooler approach.

A fortnight ago, Israel returned the bodies of two Hizbullah fighters who were killed during the occupation. Since then, news has spread that an exchange of live captives is imminent. Should this succeed, the only prickly issues remaining would be Hizbullah's tenuous assertion of sovereignty over a small patch of land in the Israeli-occupied Golan Heights—and the party's ideological hostility to Israel.

Neither makes a good pretext for all-out war. The hostages, as both sides call the other's prisoners, include some 18 Hizbullah men seized during the occupation, and four Israelis kidnapped by Hizbullah soon after Israel withdrew. Hizbullah has not revealed whether three of its captives are still alive; nor has it ever disclosed the fate of Ron Arad, an Israeli airman missing since 1986.

Perhaps a dozen other Lebanese held by Israel, but not related to Hizbullah, may also be released. In the past, the Shia militia has insisted that some of the thousands of Palestinians in Israeli jails should be part of a prisoner swap, but over the past three years of halting, ultra-discreet negotiations through German mediators, this demand seems to have been dropped.

So why should a deal come now? Partly because pressure from the prisoners' families embarrasses the adversaries. But it is also a result of changing regional dynamics. Israel, embroiled in the *intifada*, wary of Iran's nuclear ambitions, and heedful of American pleas to keep calm, has other fish to fry. Hizbullah's patrons, Syria and Iran, are similarly anxious to avoid stirring up troubles, especially given the proximity of American forces in Iraq.

For its part, the feeble Lebanese government—always the last voice to be heard—worries that the

country's fragile economy cannot sustain continued tension for much longer. Prodded by Syria, which has wanted to make Israel's stay in the Golan as uncomfortable as possible, Lebanon has long turned a blind eye to Hizbullah's antics in the south. But, having charmed creditors into bailing it out yet again last year, and having failed in the interim to impose the reforms it promised them, the government is under pressure to rein in Hizbullah's self-appointed “resistance”.

If the swap works, and the border stays calm, Hizbullah will find itself facing hard choices. Although born as a resistance movement, and often implicated in what others called terrorism, the Party of God has sunk deep roots among Lebanon's 1.5m Shias. Aside from its small, hardened fighting force, it runs schools, hospitals and other charities, and fields a dozen deputies in Lebanon's parliament. Its dual call for social activism and armed *jihad* has led to strains. Some old-guard extremists have left the party, saying it has gone soft. Others have tired of perpetual militancy.

Rival Shia forces in Lebanon, such as Muhammad Fadlallah, an influential ayatollah, increasingly distance themselves from Iranian-style radicalism. The resurrection of the Shia clergy in Iraq, the traditional wellspring of Shia teaching, has lately reinforced this trend, with many of its respected scholars professing political quietism rather than Islamic revolution.

But Hizbullah is unlikely to go completely tame. It may carry less weight beyond its core constituency, but that constituency remains deeply committed, and also well armed. In a speech earlier this year, the party's charismatic leader, Hassan Nasrallah, signalled both stridency and fatalism. “The resistance is no longer an organisation or a party,” he said. “It has become a culture, a spirit and a passion.”

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The Palestinian Authority

Assaulted and imploding

Sep 4th 2003 | EAST JERUSALEM
From The Economist print edition

Deadlock over Hamas, and Israel's assassination policy

Get article background

“WE HAVE entered a new and different chapter in our relations with the Palestinian side,” Israel's defence minister, Shaul Mofaz, told the cabinet on September 1st. Yet the new chapter looks familiar: it includes freezing all contacts with the Palestinian Authority (PA), demanding that Yasser Arafat goes, and launching an all-out war against Hamas “at all levels of [the Islamist group's] leadership”.

Since a Hamas suicide bomber killed 21 people on a Jerusalem bus last month, the Israeli army has killed 16 Palestinians in six “targeted” assassinations in the Gaza strip. Of the slain, 11 were Hamas men, including Hamas's main proponent of the now abandoned Palestinian ceasefire, Ismail abu Shanab. Five were innocents, including an old man and a young girl. Hit or miss, the assassinations will go on, says Israel, until the PA acts against the militias.

Reuters

Two old men who hate each other

But the PA argues that the killings make it impossible for it to act, and clamours for the world to intervene. In the absence of such intervention, it takes half-hearted measures that leave Israel cold and its people outraged. It shovels earth into tunnels allegedly used to smuggle weapons into Gaza, freezes the accounts of Islamic charities that render services to the poor, and mobilises what is left of its police forces to try to douse the fire of Hamas's homemade rockets. Some of these rockets can now reach Ashkelon, 13km (eight miles) north of Gaza. Should the firing continue, says Mr Mofaz, Israel will reinvade Gaza.

Combined with the assault from without, Palestinians see implosion from within. Last week, the prime minister, Mahmoud Abbas, tried to deliver on reform what he has failed to deliver otherwise, sacking the head of the civil service in Gaza, allegedly for corruption. Mr Arafat's response was to send militiamen linked to Fatah (the party to which both he and Mr Abbas belong) to prevent the new man taking up the appointment. The police stood aside, unsure whether to obey their prime minister or their president.

The spat is symptomatic of the power struggle between two old men who “hate each other”. Or so says a third old man, the speaker of parliament, Ahmed Korei. On September 4th, parliament convened to try to sort out the “exact roles” of its two warring heads. Under American pressure, it is likely to keep Mr Abbas in place. But, in line with most members of Fatah, it is unimpressed with the prime minister's performance so far, and may well reaffirm Mr Arafat as Palestine's supreme decision maker, both in matters to do with security and in negotiations with Israel.

This will displease Israel and the Americans, who have worked assiduously to remove him from both fields. But it will probably keep the PA's frail house in order, “at least for now,” says one weary lawmaker.

At the same time, PA and Hamas officials are meeting in Cairo in an effort to resurrect the Palestinian ceasefire. Hamas sources now admit that the Jerusalem bus atrocity was a rogue operation, unauthorised by any leadership, at home or abroad. They also say there can be no return to a truce without “strict, clear, obligatory guarantees” that Israel ends the assassinations. But Israel demands that the militias be

disarmed in a manner that is complete and verifiable. Short of this, the targeted killings will continue.

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Peacekeeping in eastern Congo

High expectations

Sep 4th 2003 | BUNIA
From The Economist print edition

The French brought peace to Bunia. Can the UN bring it to the countryside?

Get article background

THE handover was watched nervously. On September 1st, the French withdrew their 1,200 European peacekeepers from Bunia, the capital of Ituri, a mineral-rich province in north-eastern Congo. The UN Observer Mission for Congo (Monuc) took over, with a force from Bangladesh, India, Nepal, Pakistan and Uruguay, that will eventually number 4,800 men.

Ethnic Hema and Lendu militias have been butchering each other's civilians for the past four years, killing 50,000 people and forcing another 500,000 to flee. The rivalry between the cattle-rearing Hemas and the crop-growing Lendus is manipulated by Uganda, Rwanda and the Congolese government, all of them hungry for Ituri's goodies, which include gold, diamonds and coltan, used in mobile phones.

In June, French forces landed in Bunia to protect civilians from the militias that were rampaging through the town. Before they arrived, houses and shops were largely abandoned, and dead bodies lay rotting in the bushes. Within weeks, nervous residents returned, restaurants and shops had reopened, and black-market French rations were available at makeshift stalls near the UN headquarters. The French enforced a no-weapons rule in Bunia, much to the chagrin of the Union of Congolese Patriots (UPC), the principle Hema militia, now backed by Rwanda, which was left in control of the town after the Ugandan army withdrew in April.

The occasional murderous vendetta still happens, and gunfire can be heard at night, but by and large the town has been secured, with checkpoints on the roads. However, savage raids and killings still wreck the villages in the hills surrounding Bunia. The farthest the French-led troops went out of the town was to investigate an attack about 25km (15 miles) to the north.

The UN force, currently patrolling the suburbs of Bunia, intends to push into the surrounding countryside. Monuc has recently been given a stronger mandate that allows its troops to open fire as and when they see fit, and its commander, General Mountaga Diallo, indicated that “the Ituri brigade” would be establishing itself in the countryside by September 15th.

Drodro, 40km north-east of Bunia, was the scene of terrible massacres of Hemas by Lendus in April. Many people now fear more attacks, in a Lendu push from the north. Hundreds of refugees have fled towards Bunia. Another attack at the end of July, on Fataki, 70km north-east of Bunia, resulted in dozens of people dead, and hundreds being abducted and forced into labour camps or sexual slavery.

In Bule, 15km south of Fataki, residents claimed that they had been attacked by Lendu fighters, backed by men in Ugandan fatigues, with women and children doing the pillaging. “They burned our houses and took everything, and all our cows. Our children have nothing to eat, nothing to make the journey with if we want to flee,” said Jean Baki, a teacher, as a group of women on their knees searched through the ashes of a burnt hut.

The expectation of what the UN forces can do is high. Some 17,000 displaced people are living in camps in Bunia, 40% of them from surrounding towns. Their hope is that the UN can win back their towns for

them. But Ituri is roughly the size of Sierra Leone, and there are several different militias fighting in its hills, backed by army generals from Uganda and Rwanda, or by proxies of the Congolese government.

Making things even harder, the Lendu villages outside Bunia deeply distrust the UN. They say that Monuc stood by and did nothing when the UPC was on the rampage, hunting down Lendus in May. “We don't want Monuc here, they are biased against us and help the Hema militia,” said Colonel Faustin Taku, a field commander in Zombe, a Lendu village 20km south-east of Bunia. Behind him, a motley crew of young men and boys from an assortment of different tribes line up, one of them focusing an imaginary rocket-launcher on a UN helicopter buzzing overhead.

In Kinshasa, the capital 1,700km away on the other side of the country, leaders of the armed movements in Ituri gathered on August 16th to talk with Monuc, about disarmament and about participation in a new army of national reconciliation. They agreed that the continuing violence was a disgrace, and decided to convene another meeting in the second week of September. On the ground, the disgrace continues.

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Uganda's child rebels

Thou shalt not kill

Sep 4th 2003 | GULU
From The Economist print edition

Last year it was thought that the Lord's Resistance Army was beaten. It was not

THE prodigal sons and daughters were coming home. First they had to be cleansed. About 70 haggard children queued along a path leading to the chief's house. The first in line, an adolescent girl wearing a T-shirt advertising an American circus, crushed an egg with her bare foot, then stepped over a branch from a plant prized for its cleansing properties, and a long stick used to open the village granary. Women clapped, ululated, and sang.

These children, at last month's homecoming ceremony near Unyama refugee camp in northern Uganda, were the lucky ones. They were free, having escaped or been recaptured by the army, after months, or in some cases years, of existing as captives of the Lord's Resistance Army (LRA). And of Africa's many rebel armies, few are as awful as the LRA.

Led by Joseph Kony, a self-styled Christian prophet, the army recruits by kidnapping. Children, many of them under ten, are taken at gunpoint from their homes in the night. The boys are given guns, and forced to fight the Ugandan army. Girls are made to become concubines for the LRA leaders. Many die. Just a few days before the Unyama children returned home, local newspapers reported that 45 abductees had drowned when their captors forced them to cross a swollen river. Stragglers, and those who try to escape, are murdered—usually by other children on the orders of LRA commanders.

The war has now been going on for 17 years, blighting a country that is otherwise mostly successful. In Kampala, the capital, people joke of needing visas to visit the north. And, indeed, the north is another country. In Gulu, the north's fast-growing biggest town, disease and malnutrition are everywhere. There is a shortage of millet, the local staple, because so many farmers have been forced into refugee camps. In the evening, the streets are filled with children from the surrounding countryside, who would rather sleep on the pavement than risk abduction by the LRA.

This divide between north and south is also the root cause of the war. When Uganda was still a colony, the British stocked the army with northerners. Because they controlled the army, northerners dominated post-independence politics until 1986, when President Yoweri Museveni, a former rebel fighter from a western tribe, seized power. The government soldiers then fled north, to become rebels themselves. Most of their rebellions were defeated or bought off long ago. But the LRA keeps on fighting.

Nobody is quite sure why, or what the LRA wants from its war. Mr Kony says he intends to turn Uganda into a theocratic state governed by the Ten Commandments, though he clearly has a shaky grasp of the fifth. A 15-year-old former rebel, interviewed at a camp for those who had recently escaped or been recaptured by the army, had a cruder explanation. Mr Kony's commanders, he said, “just say they want to take away all the houses and vehicles.”

Last year it had looked as if the government might be able to crush the movement. Sudan, which had long helped the rebels (to counter Uganda's support for southern Sudanese rebels), changed course, and allowed the Ugandan army to cross its border in pursuit of the LRA. Though the government claimed the offensive a success, Mr Kony managed to escape back to northern Uganda, where he continued the war more fiercely than ever.

In the past year, according to Human Rights Watch, the LRA has abducted 8,400 children, which is almost as many as it kidnapped over the entire previous decade. The child fighters are hard to catch, as they wear no uniforms, move around in small groups, and can easily bury their weapons under a bush and pass for innocent cattle-herders. Ugandan soldiers are terrified of them, not least because they are widely believed to possess magical powers.

The government has ordered 800,000 people who live in the areas most affected by the LRA into refugee camps, where they are supposed to be safe. In fact, the LRA attacks the camps with impunity. Residents say that the army fights only half-heartedly on their behalf, and that government soldiers scare them almost as much as the rebel ones do. In recent months the LRA has grown bolder, launching attacks farther south than it usually does. A worried Mr Museveni travelled to the affected area last month, promising to vanquish the rebels in “just one week”.

Northern politicians and religious leaders want the prime minister to negotiate with the rebels. But that does not seem to be working either. This spring, he reluctantly agreed to a ceasefire, and appointed a delegation to start peace talks. But the truce soon collapsed, and the killing continues. The northerners claim that Mr Museveni was never serious about negotiating: the war, they say, is convenient for the government, so long as it is confined to an area where it does not have support. But the rebels also seem uninterested in talking. Mr Kony has never made it clear what he wants from negotiations. To many, it seems that the aim of his rebellion is the rebellion itself.

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Correction: International Crisis Group

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An article in last week's issue of *The Economist* print edition described the International Crisis Group as being “American-funded”. The ICG is an independent organisation which receives public and private funding not only from America but from 20 other countries too. Apologies for our error.

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About sponsorship

Spain's conservative leadership

A new helmsman boards the ship

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From The Economist print edition

Reuters

Spain's prime minister has chosen a successor. Who is the new man—and will he make a difference?

WHEN José María Aznar and his conservative government were elected in 1996 after 13 years of Socialist rule, he promised to make Spanish politics boring—and, to the satisfaction of many (perhaps most) Spaniards, he has probably done so. With his often prickly and rather authoritarian manner, Mr Aznar has run a tight ship and steered Spain with efficiency in broadly the right direction. Under the rule of his People's Party (PP), the country has prospered. The economy has grown by an average of 3.6% a year in the past seven years. Unemployment has halved from 22% in 1996 to 11% today. Spain's is one of the sturdiest economies in the euro zone. The country has gained in stature on the global and European stage.

Mr Aznar, a former tax inspector, has always come across as pretty straight. True to his word, he now looks sure to bow out after the coming general election, expected in March. The party's ruling council, plainly at Mr Aznar's behest, has now picked Mariano Rajoy, the senior of the government's two deputy prime ministers, to lead the party into battle as candidate to be the next prime minister. With opinion polls putting the PP some six percentage points ahead of the Socialists, Mr Rajoy has at least a fair chance of getting the job.

If he does land it, will he change Spain? On the face of things, not much. He is very much in Mr Aznar's mould, albeit with a jollier, more affable touch. Aged 48, he has been in politics all his life. He is tough, loyal, dependable and articulate. Trained as a public notary, he hails from a prominent political family in Galicia. He was a youthful member of the People's Alliance, the PP's forerunner that was born more directly in the stable of General Franco. In his 20s, Mr Rajoy was a member of Galicia's regional assembly. Moving into the national arena, he has served as minister for culture, education and the interior. He certainly knows the ropes.

More recently, as deputy prime minister in charge of presenting the government's face to the public, he doughtily defended its poor performance over such things as the oil-spill when a tanker sank last year off the coast of Galicia. And he coolly took the flak, from right as well as left, over Spain's pro-American stand in the Iraq war, which was hugely unpopular at home. Not surprisingly, José Luis Zapatero, leader of the Socialist opposition, says he is merely Mr Aznar's yes-man.

If so, not for much longer. For one thing, Mr Aznar promises that he will not pull the strings from behind—and he tends to keep such promises. Mr Rajoy is expected shortly to drop his government posts and take over the running of the party and its policy. Mr Aznar will continue to run the government, but, come the election, he will withdraw entirely from Spanish politics. “From today the PP's leader is called Mariano Rajoy,” said Mr Aznar on August 29th. “There will be no shared leadership.”

For another thing, Mr Rajoy is likely to be subtler in application and more flexible in substance, as well as lighter in style, than his predecessor. This could soften the perennial rows between the central government in Madrid and Spain's 17 regional administrations, especially those in the Basque country and Catalonia. Non-violent Catalan and Basque nationalists have welcomed the choice of Mr Rajoy to lead the PP. The Socialists, too, say they hope that the *clima de crispación*, the mood of bad blood between the two main parties, will end under the new man. “Spain can no longer bear the tension and constant adversarial politics of vilification that we have suffered during the seven-and-a-half years of Aznar's PP government,” pleads a left-leaning newspaper, *El Pais*.

Like Mr Aznar, Mr Rajoy will give no quarter to Basque terrorists. But he may approach the politics differently. Mr Aznar fell out badly with the non-violent Basque Nationalist Party (PNV), making any settlement of the tricky Basque problem much harder. Later this month, the PNV will present its latest plan for further devolution and will again demand a referendum on what it calls self-determination. Mr Aznar's response is likely to be virulently hostile. Mr Rajoy may, if only in tone, seek to distance himself a shade from his old master's voice.

In economics, Mr Rajoy is likely to copy Mr Aznar closely. He may be less liberal than his chief rival for the PP succession, Rodrigo Rato, the finance minister. Spain must still liberalise its energy and finance sectors and loosen its labour market. But Mr Rajoy may well be cautious, like Mr Aznar before him. And he is unlikely to dare to get far ahead of public opinion.

New policies, then? Unlikely. A new mood? Maybe. That sounds like no big change. But in a country where emotions in politics can fast run high, a new style at the top could make quite a difference.

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Germany's trade unions

Ever weaker

Sep 4th 2003 | BERLIN
From The Economist print edition

The decline of organised labour may not be entirely to Germany's advantage

AFP

Peters in the pink

IS THE chancellor, Gerhard Schröder, heading for a real bust-up with the trade unions, like Margaret Thatcher and Ronald Reagan in the 1980s? If you listen to Jürgen Peters, who has just been elected chairman of IG Metall, the engineering union that is the country's most powerful, you might think so. A punch-up with the government is “unavoidable”, says Mr Peters, if it dared, for instance, to allow more local exceptions to industry-wide wage deals.

Yet such fighting words will probably not add up to anything more than the meagre protests earlier this year against the government's reforms. This is because the power of IG Metall in particular and the German trade unions in general is eroding—so quickly that some experts, even on the business side of the bargaining table, are worrying that the country's famously peaceful labour relations may suffer.

One reason for the decline of Germany's trade unions is economic. Since 1991, the membership rate among workers has dipped from 32% to 20%. Even in the western part of Germany, most firms no longer adhere to industry-wide wage agreements. Many others make use of “opening clauses”, which let hard-pressed companies temporarily impose longer working hours or lower wages; unsurprisingly, real pay rises have lagged behind formally negotiated increases by a cumulative 12% in the past ten years.

More important is the union's loss of political influence, even in the past six months. In March, when Mr Schröder announced his ambitious reform plans, the unions were still seen as the main force that could mess things up. But then in June came the failure of an IG Metall strike for a shorter working week in eastern Germany. That humiliating defeat may well turn out to be as historically significant for Germany's unions as Mrs Thatcher's victory over Arthur Scargill and the miners.

So unions have played hardly any part in the debate about the country's reforms. Moreover, they are at odds with themselves. It was notable at its congress that IG Metall not only elected the hardline Mr Peters as chairman but also the more reformist Berthold Huber as his deputy. Both got only tepid support. Mr Peters won only 66% of votes, the weakest-ever endorsement of a new IG Metall leader.

All this cheers up Mr Schröder, who has let it be known that he intends to run again at the general election in 2006 (alongside his Green foreign minister, Joschka Fischer, who has thus signalled that he no longer wants to become the EU's foreign minister, at least for now). Whether weak unions are good for Germany remains to be seen. They have helped to preserve industrial harmony in the past. Between 1992 and 2001, the country lost a mere nine working days a year per 1,000 workers to strikes, against 22 days in Britain and 48 in the United States. If the unions slump too much, Germany may lose one of the few competitive edges it still has.

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Opera in Berlin

One too many?

Sep 4th 2003 | BERLIN
From The Economist print edition

Berlin's opera houses are given a chance to survive—but for how long?

DOES Berlin really need three opera houses, more than any other city in the world has, when it is also among the European cities most heavily in debt? Most of Germany's economists say no. But the country's politicians, fearful of destroying an ancient cultural heritage, have agreed that for the foreseeable future the *Deutsche Oper* (the German Opera), the *Staatsoper* (the State Opera) and the *Komische Oper* (the Comedy Opera) should all be kept alive.

Culture is the responsibility of Germany's 16 *Länder* (states), of which the city-state of Berlin is one, but this summer the federal government, mindful that its capital is €50 billion ($54 billion) in the red, agreed to throw a lifeline to its operatic trio. A new opera foundation may, if Berlin's council agrees, take over the running of all three houses in the new year.

For more than two years politicians and producers have been wrangling. Some wanted to merge the *Deutsche Oper* and the *Staatsoper*, the two big established houses, and let the smaller and less costly *Komische Oper* stay independent. One house, it was mooted, might put on big Wagnerian extravaganzas, another would do operettas and light opera, while the third could have everything in between. Richard von Weizsäcker, a former German president, proposed reviving a plan by Prussia's King Frederick II for a *Forum Fridericianum*, a cultural hub in the city centre, where the *Komische,* the *Staatsoper*, a concert hall in the Gendarmenmarkt and the Hanns Eisler music school, all of them near or on Unter den Linden, the city's finest avenue, could merge. Some suggested simply closing down one of the two big operas. Yet after much soul-searching no one could bear to be so ruthless. So all three opera houses are set to survive—at least for now.

But is there a big enough audience? Whatever the subsidies, many seats have been empty. A recent five-hour production of Messiaen's “St Francis of Assisi” at the *Deutsche Oper* proved too much for most Berliners. And the quality is patchy—overall lower, says Alex Ross, the *New Yorker*'s music critic, who recently spent three months in the city, than in New York or London.

Still, Berlin does offer a more exciting variety than anywhere else. In cities with two chief opera houses, such as London, Paris and New York, one usually has a mainstream repertory while the other is a bit more daring. But Berlin is unpredictable—and often bolder. In New York, says Mr Ross, you would not see a singing and dancing Osama bin Laden, as you did in a recent *Staatsoper* production of Shostakovich's “The Nose”. Nor would you see Massenet's “Werther” set in a grubby launderette.

But without big audiences or cash, why should the new foundation prosper? Wait, after a respite, for Berlin's bitter operatic *Kulturkampf* to resume.

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Hungary

Ditching the diaspora?

Sep 4th 2003 | BUDAPEST
From The Economist print edition

The Hungarians have had to soften a law embracing all their ethnic kin

THE mere words “status law” are enough to make some Hungarian diplomats wince. “Preference law” is the term they favour now to indicate the ill-starred piece of legislation, properly called the “Act on Hungarians Living in Neighbouring Countries”, which has caused them so many headaches in the past two years.

The law was meant to give a financial and moral boost to ethnic Hungarian minorities in Croatia, Romania, Serbia and Montenegro, Slovakia, Slovenia and Ukraine. The trouble was, Hungary neglected to take fully into account the sensitivities of the respective governments. Romania and Slovakia in particular saw the planned handing-out of identity cards, educational benefits and Hungarian work permits to certain of their citizens as an unwanted interference in their sovereign affairs. The European Commission grumbled, too, that parts of the law smacked of ethnic discrimination, incompatible with the values of the European Union which Hungary planned to join in 2004.

A first attempt to revise the law, late last year, pleased few. A second attempt in May this year has been better received. Gone now from the text is the claim that Hungarians (or Magyars) living abroad form part of a “single Hungarian nation”, an assertion which neighbouring countries found vaguely threatening. Gone, too, is the promise of special work permits allowing Hungarians from neighbouring countries to work temporarily in Hungary and to benefit from the health and social-security systems there. “Hungarian certificates” will remain available to ethnic Hungarians who want them, but the law is clear that they can never serve as official travel or identity documents. The other main surviving provisions of the law concern financial and technical help for students and teachers learning or teaching in the Hungarian language in the neighbouring countries, and who consider themselves “Hungarian” by birth or marriage.

Even that was not quite enough for Romania, which insisted on additional terms. In Romania, holders of Hungarian certificates will not be able to claim certificates for their non-Hungarian spouses, though the status law would allow this. Hungary has also promised that some educational benefits will be available equally to all Romanian citizens studying or teaching in Hungarian, not only to those of Hungarian origin. These concessions have paved the way for a final deal due to be signed by Hungary's prime minister, Peter Medgyessy, in Romania next week.

Hungary hopes that a similar agreement can be reached with Slovakia, the status law's other main critic. This may be tricky, despite some optimistic noises at a foreign ministers' meeting in July. One Hungarian official says that Slovakia is willing in practice to accept the sort of measures to which Romania has agreed, but dislikes any talk of the status law as such. One answer might be a bilateral agreement between Hungary and Slovakia which echoed the provisions of the law without mentioning it.

For Hungary's ruling Socialists, the long job of tidying up after the status law has been all the more irksome, since they were not even the ones who invented it, though they did support it in parliament. That honour went to Fidesz, the nationalist party led by Viktor Orban, which lost power to the Socialists in last year's election—but which is regaining popularity now. Three out of four opinion polls published last week showed Fidesz leading, with 46-50% of the voters' support against 38-42% for the Socialists. Whatever the status law's fate, Mr Orban's brand of unashamed nationalism may be less out of style in Hungary than the country's neighbours, and Brussels, would like to think.

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Sweden's euro referendum

The noes are ahead

Sep 4th 2003 | STOCKHOLM
From The Economist print edition

Sweden's prime minister is struggling to win a yes to joining the euro

EVEN for the joggers picking their way through the blueberries along the quiet forest paths outside Stockholm there is no escape from the “Yes to the Euro” campaign. With just over a week before Swedes vote on whether to abandon the krona, even the trees are festooned with metre-high signs extolling the virtues of the single currency and warning against the dangers of staying outside. From the placards to the endless billboards, pages of newspaper adverts and streams of leaflets, the far larger resources of the euro's supporters are being used to the full. Backed by business, the yes side is probably outspending the no side by five to one.

It is not just its financial muscle. Sweden's great and good, ignoring traditional political divisions, are lining up to woo a euro-sceptic people. The Social Democratic prime minister, Goran Persson, stands shoulder to shoulder with his toughest rival, Lars Leijonborg of the economically right-wing Liberals. Trade union leaders team up with employers' associations. The foreign minister, Anna Lindh, the Social Democrats' heir apparent, hugs and kisses the boss of Ericsson, the country's industrial flagship.

The opinion polls are hardly budging. The lead for the noes has narrowed but is still 5-14 percentage points. And the riches of the yes side may be helping the no team by making it look like David to the pro-yes Goliath: the people versus the establishment.

In fact the no campaign's wayward organisation and its failure to throw up a charismatic leader means that the pugnacious Mr Persson lacks a clear opponent. He is chasing shadows—with a hint of desperation in his latest moves. After months of campaigning, he now says he never wanted a referendum in the first place and that, even with a yes vote, joining the euro may well be delayed if the terms offered are not good enough. Now it seems that both a yes and a no vote may actually mean “wait and see”.

Worse still, matters beyond the prime minister's control have come to the fore. Ructions over the stability pact, the euro zone's tool for ensuring budgetary discipline, have cast the German, French and Italian economies, comprising 70% of the zone's combined GDP, in a bad light. Naturally, the no side points to Sweden's strong public finances, faster growth and lower unemployment: plainly, they say, the country is better off outside.

So is the contest over? Mr Persson says not. In last year's general election the pollsters much underestimated his party's support. And in 1994, in the referendum on whether to join the European Union, Swedes swung towards a yes only in the last few weeks. Current polls still show plenty of undecided voters. They are Mr Persson's last hope.

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Austria and privatisation

Don't sell our family silver!

Sep 4th 2003 | VIENNA
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Austrians are still reluctant free-marketeers

THESE days, in most of the world's rich countries, if the government tried to sell its stake in a flourishing steel group through a public share offer, few people would bat an eyelid. Not in Austria. The proposed flotation of one-third of Voestalpine later this month for an estimate €450m-plus ($494m) has sparked a furore. Accusations are flying. It is an unpatriotic sell-out to foreigners, cry many. The market, say others, is being manipulated. Wolfgang Schüssel's right-wing coalition government has been rattled.

Voestalpine is not an ordinary company. Founded by the Nazis after the *ANSCHLUSS* (Union) with Germany in 1938 as the Hermann-Göring-Werke in Linz, the steel mill became the flagship of Austria's state-owned industry and was long a fief of trade unions and the Socialist Party. After a brush with bankruptcy, a partial privatisation in the mid-1990s and diversification into car parts and rail systems, it became one of Europe's most profitable steel groups and the pride of Linz and the surrounding province of Upper Austria.

So the political leaders of Upper Austria were not amused when they found out that the finance minister, Karl-Heinz Grasser, had been having secret talks with Magna International, a Canadian car-parts group, about a possible takeover and break-up of Voestalpine. Mr Grasser once worked for Magna, whose flamboyant Austrian-born chairman, Frank Stronach, has made big inroads in recent years into Austrian industry, politics and even football. After a public outcry, Mr Grasser, who used to belong to the coalition's junior partner, the ultra-nationalist Freedom Party once led by Jörg Haider, had to promise that Voestalpine would not be taken over by foreigners and would definitely not be split up. He suggested a private sale to selected investors—but the European Commission in Brussels said no.

So Mr Grasser and his boss, Mr Schüssel, instead proposed a public share offer—with a corporatist flavour. Instead of organising road shows to solicit the highest bids from international fund managers, the state holding group ÖIAG gave a few weeks' notice and began to assemble a bunch of friendly investors who already own around 30% of Voestalpine. Its leader is Ludwig Scharinger, a big banker close to Mr Schüssel's People's Party. Assured of his support, Mr Schüssel declared that Voestalpine would stay in the control not only of Austrians but of Upper Austrians.

Other bankers then cried foul. A meeting at the stock exchange with the main people involved was cancelled. Political support for the deal began to crumble. Freedom Party people still inveigh against foreign threats and demand that further privatisation be stopped.

Mr Grasser refused. But the rumpus may have scared foreign investors away. Mr Schüssel, who talks fondly of open borders and free markets, now sounds happy to accept a much lower price for Voestalpine to keep it in familiar hands. That, it seems, is what Austrian voters want.

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Russia's navy

Slow, inglorious death

Sep 4th 2003 | MOSCOW
From The Economist print edition

The latest tragedy shows how little has changed since the sinking of the Kursk

THEIRS was the most pointless of sacrifices. The nine men who died on the K-159, a Russian nuclear-powered submarine that sank in the Barents Sea on August 30th, were accompanying it to the scrapyard. The investigation will focus on why a submarine decommissioned 14 years earlier was being towed 350km (217 miles) with its nuclear reactors still in place, its conning tower open, and people on board.

The accident was a reminder of the sinking and botched rescue of the submarine *Kursk* three years ago with the loss of all 118 crew. President Vladimir Putin fired a dozen top officers after an inquiry discredited their claim that the *Kursk*, out on an exercise, had been rammed or fired on by a foreign ship; it blamed an internal explosion. But many of those sacked moved on to comfortable government jobs elsewhere. No one was prosecuted.

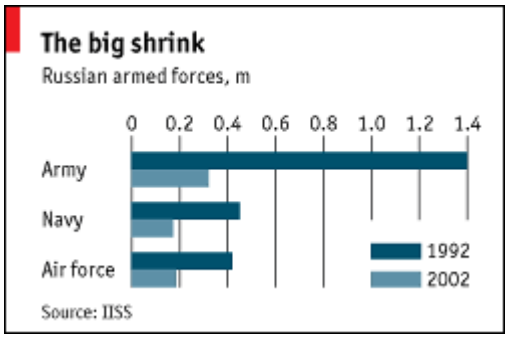
AFP

A prayer for friends in the deep

As the K-159 sinking shows, incompetence and ignorance of basic procedures, which the inquiry found to be at the heart of the *Kursk* affair, remain rife. The only lesson learned seems to be about public relations: in contrast to the near-blackout of information three years ago, Mr Putin and his defence minister, Sergei Ivanov, responded quickly, with promises of an inquiry and several instant dismissals.

But as with the Russian armed forces in general, the navy's basic problem is too little cash for too big a force. Of some 250 nuclear subs built by the Soviet Union, nearly four-fifths are out of service, but fewer than half of those have been scrapped. The rest, many still with fuel in their reactors, sit and rust. That, it is said, is partly because Admiral Sergei Gorshkov, who dominated Soviet naval thinking for decades until his retirement in the mid-1980s, proudly resisted decommissioning, leaving the now impoverished navy with a backlog of old ships to dismantle as cheaply as it can. As a result, argued Mikhail Tsypkin of the United States Naval Postgraduate School in a recent paper, the navy's decline in size (see chart) may look steeper than it really is.

The navy was one of the guardians of the Soviet Union's nuclear deterrent. Sea-based nuclear missiles are still a large part of the total, but the *Kursk* tragedy showed that they are risky to maintain. War on the high seas is now highly unlikely; these days Russia needs more ground and air forces, to deal with local conflicts like that in Chechnya. The only bit of the navy that is growing is its small, unprestigious fleet in the Caspian Sea, where Russia now tussles (usually through diplomatic channels) for control with other littoral states. As a result, says Pavel Baev at the International Peace Research Institute in Oslo, the navy has lost clout, and “is probably the worst hit by the degradation in the military”.



Ironically, the exercise in which the *Kursk* sank was part of the navy's attempt to reassert itself as a bulwark against NATO, soon after a Russia-NATO showdown over Kosovo. The sinking at least injected a note of realism. Yet new naval doctrines adopted in the last three years are still suffused with cold-war strategy and contain few practical proposals. The commanders' refusal to add deeds to words is what

ends up killing their sailors.

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Charlemagne

Europe and Uncle Sam

Sep 4th 2003
From The Economist print edition

Will Europeans try to help the Americans in Iraq—or gloat over their discomfiture?

"PUNISH France, ignore Germany, forgive Russia" was the famously pithy advice of Condoleezza Rice, America's national security adviser, after the rows over Iraq at the United Nations earlier this year. The successful American-led overthrow of Saddam Hussein seemed to give the Americans both the means and the motive to pursue such a strategy. France, which led the opposition at the UN, had particular cause to fear exclusion from juicy reconstruction contracts in Iraq, and the denial of influence in reshaping the Middle East. But now that the United States, alarmed by the rising cost of occupying Iraq, in blood and cash, has decided to return to the UN to seek a mandate for a broader military force, those Europeans who opposed the invasion of Iraq face their own version of Ms Rice's choice. Should they try to punish, forgive or ignore America?

The "cheese-eating surrender monkeys" in Paris would be less than human if they did not take a certain grim satisfaction from this turn of events. Some of the American neo-conservatives who were bashing both France and the UN earlier this year have markedly changed their tune. In February, Max Boot of the Council on Foreign Relations in New York, scoffed that "no one in his right mind would look to France for anything more weighty than a good soufflé recipe". As for the UN, "it provides a useful forum for palaver but as an effective police force it is a joke." By early August, however, Mr Boot was lamenting that the United States is "short of soldiers and money" in Iraq and was suggesting that "if another United Nations resolution could reduce the strain on American forces, why not seek it?"

As it happens, neither France nor Germany are in a position to provide much in the way of men or money. Both countries would struggle to come up with more than 5,000 troops each, compared with some 140,000 American soldiers currently on the ground, backed up by 10,000 from Britain and a 9,000-strong Polish-led force which was deployed this week in central Iraq. Pakistan, Turkey, Egypt and India may also provide contingents of troops in serious numbers. Their presence would be a telling symbol, since it would involve three large Muslim nations in Iraq's reconstruction. But these countries have made it clear that they will not commit troops without a new UN mandate, and here the role of the recalcitrant Europeans is crucial. France and Russia are permanent veto-wielding members of the UN's Security Council. Germany is a current member too.

The French, in particular, could, if they wanted, make things very awkward. Jacques Chirac, their president, always insisted that the American-led invasion of Iraq was illegal. If France uses the new UN debate to try to humiliate or "punish" the United States, acrimony and deadlock would ensue. Officials of

the EU in Brussels, charged with trying to fashion a single European Union approach, insist that the Europeans will have to be “reasonable” in future negotiations.

They accept that America's demand that any UN force in Iraq must have an American commander-in-chief is most likely to be met, given that the bulk of the troops will continue to be American. A trickier problem will be the question of political control, especially in the months before the transition to a genuine Iraqi government. Even if a UN force had an American general in overall command, some Europeans would still want him to answer to a UN-appointed civilian boss. But would the United States be prepared to accept that? And where would that leave Paul Bremer, the American who now presides over Iraq's physical and political reconstruction?

Even with good will, it may be tricky to craft a new UN resolution that resolves all such sensitive issues. If France chooses to play to the gallery, at home and in the Arab world, it will be impossible. But cooler heads in Paris can see good reasons to seek a consensus at the UN. Nobody in Europe would benefit from an unstable and blood-soaked Iraq. Indeed, Europe would be in the front line, fearing inward flows of refugees and the radicalisation of its own indigenous Muslims. Whatever the emotional satisfaction for France and Germany of saying “I told you so”, they also have no long-term interest in a prolonged stand-off with the United States.

In any event, despite the current difficulties, it is too early to write off the possibility that the new Iraq may indeed be stable, prosperous and fairly democratic. If the anti-war Europeans now turned down a chance to help facilitate such an outcome, they would only bolster the chance of their political and commercial exclusion from a refashioned Middle East. A new UN resolution would also further other professed aims of French and German foreign policy. It would help to reunite the EU, which was so bitterly divided over Iraq. Not only the British, but also the Poles, Dutch, Danes and Spaniards already have troops in Iraq. And it would also strengthen France's argument that even the American “hyperpower”, as its previous foreign minister dubbed it, cannot afford to act alone.

The Schadenfreude of Europeans?

Such arguments may already be swaying the French, Germans and Russians into making a good-faith effort to put a more multilateral force on the ground in Iraq. But if security there continues to worsen, there could still also be a strong temptation just to let the Americans take the heat. Public opinion across Europe was strongly against the war, and may resist putting more European soldiers in danger, particularly under an American general. EU officials hope that an international force, including large numbers of Muslim troops, will have an added legitimacy that makes it less vulnerable to attack than the Anglo-American coalition.

It is a comforting thought. But if only recent history were more reassuring. In the past few weeks, the two most murderous attacks in Iraq were directed at the United Nations and at a crowd of Muslim worshippers leaving Friday prayers.

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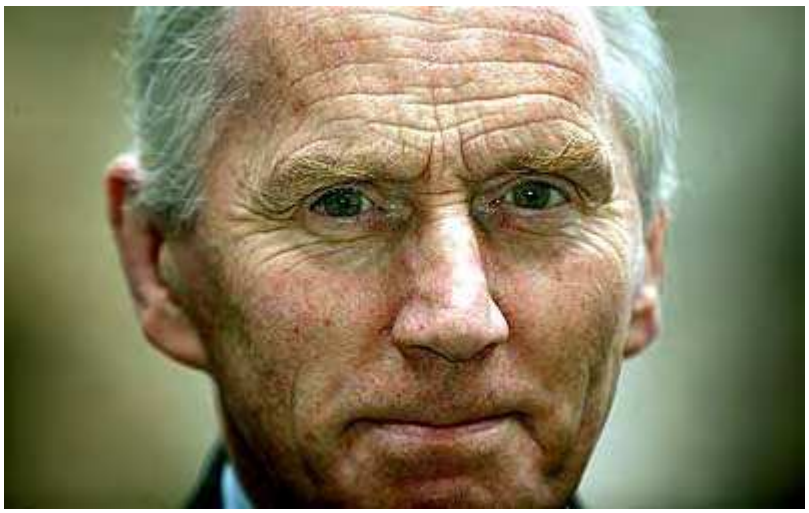
Politics

Lord Hutton's eyebrows

Sep 4th 2003
From The Economist print edition

Guardian



No matter what Lord Hutton concludes, the evidence that has come out so far will damage those involved

THE last of the 63 witnesses to the inquiry into the death of David Kelly, a government scientist who killed himself while caught in a row between Downing Street and the BBC, gave their evidence this week. The inquiry chairman, Lord Hutton, will now ponder this evidence; then recall selected witnesses; then produce a report before the end of November. But the inquiry has already done plenty of damage.

Although the government will be cleared on the narrow charge, alleged by the BBC, that it knowingly inserted false evidence on Iraq's weapons of mass destruction into a dossier of material it published last September, it may end up as the biggest loser. The daily reporting of evidence by people at the sharp end of dealings with the government must have harmed it in the eyes of voters. And this week yielded new evidence that the government may be guilty of the broader charge that it “sexed up” the material.

Lord Hutton's shrewd interventions, as he peers at witnesses from under his expressive eyebrows, betray his bemusement at the obsessive way in which Downing Street pursued its quarrel with the BBC. “Was any thought given to protecting the civil servant...from being placed in the full glare of publicity?” he asked Jonathan Powell, the prime minister's chief of staff. Mr Kelly's identity was bound eventually to leak, came the reply. The eyebrows lifted slightly.

Lord Hutton's distaste for the way Mr Kelly's name was allowed to “dribble out” by the Ministry of Defence (MOD)—as Alastair Campbell, the Downing Street communications chief who resigned last week, described it—was even more apparent. He asked Tony Blair whether it might not have been “a more appropriate procedure” for Mr Kelly to have been named directly by the MOD. Mr Blair deflected the question by saying that, at that stage, the identity of the BBC's source was uncertain.

The evidence given by Janice Kelly, the scientist's widow, loomed large in the headlines this week and will probably dominate memories of this inquiry. She said that her husband felt “totally let down and betrayed” by the MOD. He was given to understand, she maintained, that his name would not be released; then, when the MOD outed him, he was alerted to the fact by a journalist, not by the ministry.

The question of whether Downing Street exaggerated the threat from Iraq, which was successfully batted away by John Scarlett, the head of the Joint Intelligence Committee, last month, has returned. A former

manager in the Defence Intelligence Service, Brian Jones, told the inquiry that he and members of his staff were concerned because the wording in the dossier's executive summary and foreword had been “too strong”. He said he had written a memo to his boss about these and other worries—which sits oddly with Mr Scarlett's claim that he knew of no such concerns.

The BBC looks to be in trouble too. It is now clear that the story that sparked this row was, in parts, untrue. Lord Hutton has clearly spotted the fact that, if Mr Campbell chose to sue the BBC, the corporation would be on shaky ground. To quote a source making an untrue claim in good faith is not enough: the claim itself must be true. Lord Hutton asked the BBC's chairman, Gavyn Davies, whether he drew any distinction between a broadcast that accused a prominent person of bribery and a broadcast that quoted a reliable source alleging that a public figure had taken bribes. In response to an evasive answer, Lord Hutton asked why, if the BBC accepted the prime minister's vehement denials, it had not published a retraction. Mr Davies replied lamely that the BBC had no evidence that “the source would have wished to withdraw his views”.

The BBC's chairman was also in difficulty when he admitted that he had not been aware of an e-mail from the editor of the “Today” programme on which the controversial story was broadcast saying that its attack on the government had been “marred by flawed reporting”. Asked whether he and the other governors should have been shown this criticism before coming out with an almost unqualified defence of the BBC's reporting, he replied: “No, I did not, honestly...They [these comments] are considerably below the Board of Governors level.”

The week after next, those witnesses most likely to be criticised will be recalled for cross-examination. They are expected to include Mr Campbell, Geoff Hoon, the defence minister, Mr Davies, and the defence correspondent of the “Today” programme, Andrew Gilligan. None is likely to enjoy the experience.

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Citizenship

Britain for beginners

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Britain's huddled masses will soon face a citizenship test

ASK British people to define the character of their nation, and you will usually get something vague about fair play, pride in defeat and (to quote John Major's most famous utterance) “warm beer, invincible green suburbs, dog lovers”. This sort of talk may go down well at Lord's cricket ground, but it makes little sense to the unassimilated. So, on September 3rd, an advisory group told the Home Office that would-be British citizens should be taught something more tangible: history, civics, and English, along with practical stuff like how to pay the gas bill.

Since David Blunkett, the home secretary, thinks along the same lines, the huddled masses should sharpen their pencils for a citizenship test that will likely be tougher than the well-established American one. Before the first test is sat, though, squawks of protest are likely to be heard from ethnic “community leaders” (ie, arch-traditionalists) and immigrant advocacy groups. When the idea of a citizenship test was first mooted, 18 months ago, it was slated as a brainwashing exercise motivated by populist politics.

Some of these criticisms are fair. The government has said, often and loudly, that its immigration policies are designed in part to outmanoeuvre far-right outfits like the British National Party; this week, Mr Blunkett claimed in a BBC interview that well-drilled immigrants would “see off the racists”. If this is anything more than spin, it is folly. The far right's opposition to immigrants is unlikely to be deflected by English classes.

The suspicion that ethnic minority folk will be most affected by the new proposals is spot on, too. White immigrants from wealthy countries tend to take their time with citizenship: only 41% of Australians and New Zealanders who have been in Britain for six or more years have taken the plunge, compared with 71% from the Indian subcontinent. Setting up another hoop for the already eager to jump through seems a little unfair.

Yet the big idea—that citizenship should be aspirational—is a worthwhile one. It works well in America and Canada, where, it is said, immigrants like the test because they see it as a stamp of approval. At present, British citizenship often appears little more than a bureaucratic transaction: Anne Applebaum, a writer who became a British citizen five years ago in a Warsaw office lined with telephone directories, says that she would have enjoyed a bit of flag-waving. “Citizenship classes would actually work rather well in Britain, because there is this wonderful concept of Britishness which isn't ethnically distinct. You can become British; it is more difficult to become English or German.”

Indeed, one of the problems with the proposed citizenship tests is that, in the crucial matter of language training, they aren't stringent enough. Trainee citizens will be expected merely to move from one level of linguistic competence to the next: no bar will be set. In economic terms, though, knowing English is much more valuable than knowing English history. Sir Bernard Crick, who led the consultation team, says that immigrant focus groups were more keen on developing their language skills than anything else.

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About sponsorship

Anti-war propaganda

Peace, love and marketing

Sep 4th 2003
From The Economist print edition

The anti-war movement tries to achieve peace through design

THE anti-war march planned for September 27th is unlikely to attract nearly as many people as the record-breaking demonstrations held earlier this year. But it will improve on its predecessors in one respect: better posters.

Protest movements (classically of students, trade unionists or ideologues of one sort of another) tend to have too narrow a social base to draw on the talents of professional communicators. The anti-war movement is unusually socially acceptable. One image seen at the first big London march of February 15th—a giant yellow placard reading “Make Tea Not War”—was produced by Karmarama, an advertising agency that evidently thought the march a good place to be seen. It was right: the poster made national newpaper front pages, and a copy now lies in the Victoria and Albert Museum.

The posters produced by the march's organisers were mostly dismal. But the aesthetic credentials of the Stop the War Coalition have since improved, thanks to David Gentleman, a 73-year-old designer best known for his work on postage stamps. He despaired at the sight of so many “ragged and self-defeating” protest signs and decided to lend a hand. Mr Gentleman's bold, blood-spattered images are now being mass-produced in time for this month's rally.

The Stop the War Coalition has also discovered the virtues of whimsy. Last week, it unveiled three new placards outside the Royal Courts of Justice. These featured mug shots of Tony Blair, Geoff Hoon and Jack Straw, together with mocking text (the defence secretary's read: “You ain't nothing but a Hoon Dog, lying all the time.”) Press photographers, who had tired of the sight of Lord Hutton entering and exiting his inquiry, snapped away gratefully.

Anti-war publicists are honing what anthropologists call “symbolic consensus”—a slogan or image that people can rally around, without having to agree what it means. This is rarely achieved. American civil-rights activists managed it in 1968, with a simple placard reading “I Am a Man”—an object that now sells for more than $5,000.

Consensus, or the appearance of it, will be vital in the next few months. Even before the Iraq campaign, the Stop the War Coalition had to appeal to concerned citizens, radical left-wingers, and Muslims. Now it has to fudge the “troops out of Iraq” argument, appealing to those who want to get out now as well as those who don't. If the poster people can manage this, they will help keep the movement together—and may, one day, find their work behind glass.

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Power industry

Why did the power fail?

Sep 4th 2003
From The Economist print edition

Not because Britain has underinvested in the electricity grid

Lighten our darkness, we beseech thee

“WE'VE never faced a crisis like this before.” In a city which lived through the Blitz, the mayor of London was perhaps overstating it; still, Ken Livingstone caught the mood of panic after a big power cut in the south-east on August 28th. Large parts of London and Kent were plunged into darkness. Tube trains and railways ground to a halt, trapping thousands of people underground and stranding tens of thousands more on rainy platforms. Roads were gridlocked as traffic lights stopped working.

The immediate cause remains unclear. There seems to have been a sequence of technical faults (reportedly, a problematic transformer, false alarms, failed signals and an apparent power surge) at about the same time in a small area of the power grid serving London. Roger Urwin, the embarrassed boss of National Grid, the privatised firm that runs the power-supply network in England and Wales, said it was a “freak coincidence”. Ofgem, the energy regulator, is investigating, and will report at the end of the month.

But the two fundamental causes of the blackout were clear to many commentators: privatisation and liberalisation. The inevitable consequence of selling off the industry and letting competition rip, went the argument, is underinvestment. Britain's blackout, coming two weeks after America's big one, was widely read as evidence that its electricity industry has the same problems as America's.

This argument is flawed. For a start, the scale of the American blackout was quite different. On August 14th, some 50m Americans and Canadians lost power, many of them overnight or longer. On August 28th, a small part of Britain lost power for less than an hour. While human error may well have played a role in London's outage, National Grid cannot be accused of dawdling at the controls, thus allowing a small (and therefore manageable) technical problem to “cascade” throughout the country the way it did in America.

The charge that the British power industry has underinvested in the grid does not stick, either. In America, utilities have been given little incentive to invest in the grid. In consequence, it is dilapidated. In Britain, deregulation was better-managed. Ofgem gives National Grid targets for investment in grid infrastructure at a fixed rate of return, but then allows the firm to earn higher returns if it invests beyond the target. As a result, since National Grid was privatised in 1989, it has spent over £3 billion on grid infrastructure—about four times the rate of investment when it was state-owned, and more than ten times that in America.

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Housing market

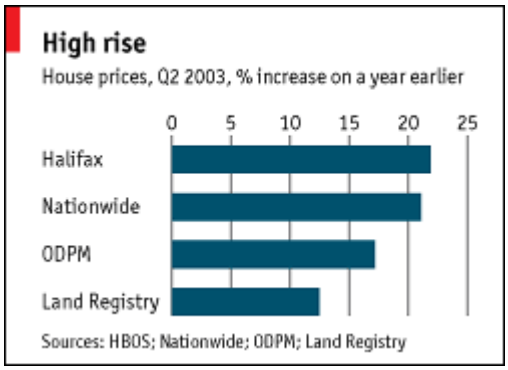
Second wind?

Sep 4th 2003
From The Economist print edition

Signs of revival in the housing market

THE state of the housing market is certain to have featured large in the Bank of England's monthly meeting to determine interest rates this week. Interest rates were held at their 48-year low of 3.5%, but this may not last for long if recent signs of a stronger housing market persist.

Until recently, house-price inflation appeared to be coming down appreciably from the peak of around 25% at the end of last year. In August, the Land Registry said that prices rose by just 12.5% in the year to the second quarter. But this week, the Halifax house-price index reported a rise of 1.3% in August, leaving prices 19% higher than a year before.



On the face of it, the Land Registry is the most authoritative source. It covers all property transactions in England and Wales. Using the final agreed prices, it works out the average price of all homes sold every three months. But it has two flaws as an indicator of house-price changes. First, it is out of date when published. Second, its measure of the average house price reflects the mix of transactions as well as their prices. If demand weakens at the top end of the market, the average price will appear to fall even though this is caused purely by the shift in the composition of sales. The Land Registry's lower rate of inflation partly reflects the fact that the slowdown in activity has been most pronounced in London and the south-east, where properties are dearest.

The house-price measures compiled by the Halifax bank and the Nationwide building society are designed to avoid distortions caused by variation in the type of property being sold. They do this by estimating the prices of the main characteristics of a house, such as whether it is detached or terraced. These are combined to work out the price of a composite standard house bought by a typical homebuyer.

If house prices in general are moving in line with the price of a typical house, this approach gives a good guide to changes in housing wealth, which is what matters for the Bank of England as it assesses the economy. But when price trends for cheaper and more expensive houses diverge, the effect of the mortgage lenders' method is to give the same weight to each type of property. This matters if, as now, house-price inflation has rippled out of London to the north where property is much cheaper. If price rises outside the south-east were instead weighted by the lower values of properties in northern regions, overall inflation would be lower than the rate shown by the two lenders.

An index produced by the Office of the Deputy Prime Minister (ODPM) which uses this value-weighted approach shows a sharper deceleration in house-price inflation this spring. According to this measure, house prices rose by 17% in the year to the second quarter, compared with increases of 21-22% shown by the mortgage lenders. The snag with this index is that it is out of date because the ODPM, like the Land Registry, compiles the figures on a quarterly basis. This will change on September 15th when the index will be published every month, starting with house prices in July.

Even if the ODPM does show lower inflation over the summer, the worry is that the housing market has got second wind. The number of loans approved in July for house purchase was the highest since November. More borrowing figures like that and the only question will be when the Bank's monetary policy committee decides to push interest rates up again.

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Conrad Black and his newspapers

Black in the red?

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From The Economist print edition

Critics are gunning for Lord Black, the Telegraph's colourful ex-Canadian boss. Their aim is all askew, he says

HE CONTROLS the *Telegraph* newspapers and the *Spectator* in London; the *Jerusalem Post*; the Chicago *Sun-Times* and many small Illinois papers; plus other bits and pieces in America and Canada. In all, over 200 publications, and that's after selling his Australian interests in 1996, and in 2000 most of his huge Canadian ones. But are the finances of Conrad Black's empire about to fall apart? The financial pages in London hint at it. His reply is to mock “the Fleet Street assassination squads”.

The words typify the man: ex-Canadian, now British, Lord Black of Crossharbour, as he became in 2001 after a fierce spat with Canada's prime minister over a (Tory-sponsored) offer from Tony Blair of a peerage. The spat was typical too. Lord Black uses language as a bludgeon, especially on his enemy of the day. “Sniggering jackals” and “puerile” were two epithets for critical Canadian journalists, “vulgar and insolent claptrap” for a British one discussing Ronald Reagan's cancer; “swinish socialist demagoguery” for the “coward and liar” (and later provincial premier) who in the Ontario legislature denounced his alleged misdeeds as an employer.

Yet Lord Black does not qualify for the “buffoonish” label that he once pinned on Robert Maxwell. Unlike most tycoons, he has written books about great men other than himself (though before he was 50—he is now 59—he did that too). He has written a learned book on Maurice Duplessis, a hero of French Quebec; and, out soon, a huge biography of Franklin Roosevelt. Ideas actually interest Lord Black.

His own are fierce, and conservative; and his papers show it. The *Telegraph* papers, where he became boss in 1985, fitted him already. As he built up his Canadian empire, he swung it to the right. He is a strong, though not uncritical, supporter of Israel. So is his wife Barbara Amiel, once a columnist—even, for a time, after their marriage—for the Murdoch press and now for her husband. When he bought the *Jerusalem Post* in 1989, the new management swung it to a hard anti-Palestinian line, harder indeed than his own.

Yet, as that hints, he is not quite the archetypal crusading press lord. The *DailyTelegraph*'s Israel correspondent of 1990-98, Anton La Guardia, was notably even-handed—and was left to be so. Lord Black's idiosyncratic method, when he disagrees, is to write in, or to, his own papers. This July, in a letter-to-the-editor, he accused a *DailyTelegraph* columnist of “whitewashing” the BBC—in his eyes, a “rogue and putschist” body eager to “destroy and supplant the government as a source of authority”.

As a publisher, Lord Black has two real achievements. The *Telegraph* papers were dying when he arrived. And in Canada he launched the *National Post*, challenging the only nationwide paper, the Toronto *Globe and Mail*. There were many jeers and much money was lost; and, as part of his $2.1 billion retreat, he sold 50% in 2000 and the rest in 2002. But the paper is still there, and its competition sharpened up its older rival.

But his critics say that his individual approach to publishing extends to his companies' finances. They say that he is none too good at distinguishing corporate money from his own, and that there isn't enough of it anyway. He denies both.

Lord Black's private company, Ravelston, has 80% of Toronto-quoted Hollinger Inc. This in turn holds 30.3%—but 72.7% of the votes, in a two-tier share structure—of New York-quoted Hollinger International (HLR), whose subsidiaries run the papers. His critics, led by a New York fund-management firm, dislike, notably:

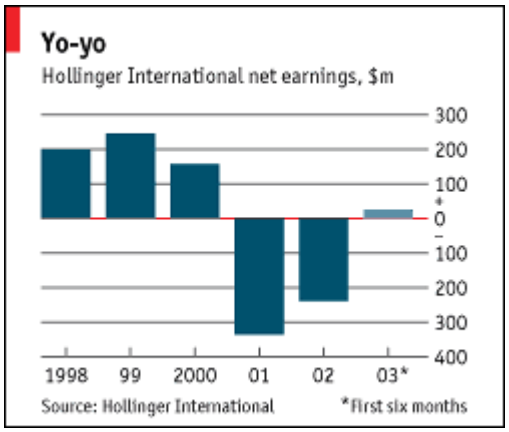
• The fat management fees, $25.6m in 2002, paid by HLR to Ravelston, and so, in part, to Lord Black ($6.5m) and others. He argued to *The Economist* this week that the fees, heavily cut after the Canadian sales, were fair. They were indeed cut—from $38m in 1999.

• "Non-compete" fees from CanWest, the buyer in Canada: $28m to Lord Black and three executives, $25m to Ravelston. Why nothing for HLR? CanWest, paying a good price, insisted on a promise not to go into competition with it, Lord Black says; fees are usual; and its worry was the individuals, not HLR.

• Some Roosevelt documents and memorabilia, bought by HLR for $8m. An investment and a bargain, says Lord Black; any fuss is a "complete confection" and no shareholder has complained. Well. The money is trivial, but since when do media companies invest in historic documents?

Ideas that the group has money trouble, says Lord Black, will shortly be "debunked". But financiers do not rush for its paper. Hollinger Inc in 1999 made a rights issue, at C$17.50, of "retractable" shares (ones it will buy back—at a price set by itself). Ravelston took up its 63% of the issue; few others did. Today's "retraction price" is C$3.75—if Hollinger Inc has the cash, which at this moment it doesn't.

In late 2001, a group subsidiary placed $140m of debt due in 2010 with an American bank at 12 1/8% interest, and at only 83% of face value. Hollinger Inc's latest debt issue, $120m in 2011 notes, pays a rate of 11 7/8%. These are junk rates.



But last winter, HLR, which does the work, placed $300m of debt at a tolerable 9%, and secured a $310m credit facility maturing in 2008. It crashed from profit in 2000 into two years of heavy loss, due more to "financial" factors than publishing ones. In January-June this year, the Illinois papers made $25m (up $9m) in operating profit; the British ones $25m (down $6.7m); the rest lost $4.5m. With other costs, gains (notably $75m in currency gains) and tax, the result was $26m of net earnings. Peanuts—and the company still has a $47m dispute with CanWest—but not the bread-line; and its ordinary shares, under $8 in March, now stand above $12.

The criticism has forced HLR to set up a committee to look at the fees issue; Hollinger Inc may have to sell some of its HLR shares; but Lord Black, now working on new finance, does not plan to give up control. Nor, he has said, would he "ever" sell the *Telegraph* newspapers.

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Bagehot

Dunspinning

Sep 4th 2003
From The Economist print edition

Tony Blair hopes that with Alastair Campbell gone the government can make a fresh start. It's wishful thinking

YOU might not have guessed it, but those close to Tony Blair insist that he is in bullish mood. He reckons that even if the Hutton inquiry concludes that more care could have been taken of David Kelly, it will clear the government of the most damaging charges. And the prime minister is not cast down by Alastair Campbell's departure from his grandly titled post as the government's director of communications and strategy. Far from it: he sees it as the chance for a new beginning.

Last year Mr Blair persuaded Mr Campbell to stay at his side as the Iraq crisis escalated. Yet now, it is said, the prime minister believes Mr Campbell's departure is overdue. He is said to be unhappy at the way his pal allowed himself to be taken over by the bitter quarrel with the BBC. Never mind that Mr Campbell has so far got off lightly at the Hutton inquiry; never mind the strenuous denials that the Kelly affair had anything to do with the timing of his departure. Whatever Mr Campbell's gifts and however close their friendship, the prime minister had decided that his closest aide had become a liability.

Although exhausted from nine years of spinning for Mr Blair, Mr Campbell's dominance was such that he cast a long shadow over colleagues. According to one insider: “When Alastair was firing on all cylinders he was tremendously valuable, but a jaded and angry Alastair was something entirely different. For the last year and a half, we have failed to get across the message about the government's economic and social achievements.” Shorn of Mr Campbell, the prime minister, we are told, now feels positively liberated. Thus the arch-spinner is spun against.

How convenient that amidst all this talk of renewal, the independent group set up earlier this year to review government communications in the aftermath of the last big row over spin should deliver its interim report. With the ink still drying, Number 10 rushed to announce that a new permanent secretary based in the Cabinet Office will oversee the government communications machine. Consequently, Mr Campbell's successor, David Hill, a Labour Party stalwart from pre-Blair days, will not have the wide powers that Mr Campbell had to boss civil servants (who are supposed to be politically neutral) around. This, the government would have us believe, is a vital first step in repairing what the review group describes as “a three-way breakdown in trust between government and politicians, the media and general public”.

Other exciting fresh starts are promised. Mr Blair has apparently been embarrassed by the light that Hutton has shed on the shambolic way in which business is conducted within Downing Street—as an editorial in the *Times* observed: “the seat of government is a sofa”. Instead of strategy being set in unminuted, freewheeling meetings of chums, there will be a new emphasis on formal process. Mr Blair also wants to bring cabinet ministers more into the policymaking process. Ministers who rise to the challenge and who form a powerful team with their civil servants and political advisers will enjoy greater independence than in the past, akin to the “earned autonomy” the government likes to confer on well-behaved hospitals and schools.

I want to tell you a story

Since the internal workings of Downing Street are a mess, it is probably quite a good idea to sort the place out. The problem with spin, however, is not too much spin—there is nothing wrong with a government trying to put the best gloss on what it does so long as it does not involve telling lies—but the lack of anything much to spin about.

Most newspapers seem convinced that Mr Blair's collapsing trust ratings are mainly to do with the missing weapons of mass destruction. Iraq and Hutton haven't helped, but they are not the principal cause of the prime minister's vulnerability. The real reason why people are losing their faith in the government lies much closer to home. In polls and focus groups the voters of middle England say they think the government has broken its promises on tax increases and is trying to deceive them about the improvements to schools and hospitals that their money was meant to secure. And reforming those public services is going to get harder, not easier. The public finances are deteriorating rapidly and the opponents of even modest reform, in the trade unions and among Labour MPs, are becoming better organised and more vocal. It is hard to see how the government can make its “narrative” (New Labour-speak for the message it wants to get across to the electorate) more convincing.

Mr Blair insists that he is as keen as ever on reform and that the way to get it is a sustained effort of persuasion using the kind of language that appeals to the left (in other words, spin). But his readiness this week to establish a “forum” through which ministers can chat about public-sector reform with union leaders tells its own story. Whatever the government may say, such a forum will be used to dilute reform even further. In days gone by, the very idea of conferring special favours of this kind on the unions was anathema to Mr Blair.

Mr Campbell has earned a rest after nine gruelling years. He lived by the sword and when he was required to do so, he loyally fell on it. He may indeed be exhausted and jaded, but it is unlikely that it was just the long hours and the pressures of the job that have made him so. What is really draining is discovering that your problems are insoluble because too many people on your side are against you.

Clearly, Mr Blair has not reached that stage of demoralisation. He retains huge confidence in his own powers. Most of the cabinet greatly prefers him to Gordon Brown. And Iain Duncan Smith is the answer to a question that the British public has yet to ask. But Mr Campbell's departure is not a new beginning: it is, rather, one step closer to the end.

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OPINION

Expect the unexpected

Sep 4th 2003
From The Economist print edition

Innovators who keep their eyes open for unexpected results—and quickly take advantage of them—reap the biggest rewards

LATER this month, *The Economist* will announce the winners of its innovation awards following a day-long discussion on the factors that propel successful innovation inside some organisations but not in others. With the paper's Second Annual Innovation Awards and Summit, to be held at the Ritz-Carlton hotel in San Francisco on September 23rd, we would like to do two things. First, we want to celebrate, and thank, a handful of individuals who, through innovations in their chosen technological fields, have been singularly successful at creating new economic and intellectual wealth for the rest of us to enjoy. Second, we hope to see what can be learned from their endeavours—in particular, what was the source of their ideas, how radical or otherwise was the technology they embraced, and what were the market needs they sought to satisfy.

In his book "Why Innovation Fails"*, Carl Franklin quotes an intriguing study by three academics, Donald Lehmann at Columbia University in New York, and Jacob Goldenberg and David Mazursky both at the Hebrew University of Jerusalem. The researchers looked at 197 product innovations, of which 111 were successes and 86 failures. What they found was that the successful innovations had some, or all, of the following features: they were moderately new to the market, based on tried and tested technology, saved money, met customers' needs and supported existing practices. By contrast, the products that failed were based on cutting-edge or untested technology, followed a "me-too" approach, or were created with no clearly defined solution in mind.

So far, so obvious. What was much less so was the researchers' list of "idea factors"—where the ideas for the innovations came from, and how they determined the success or otherwise of the ensuing innovation. For instance, "need spotting" involved actively looking for an answer to a known problem, while "solution spotting" meant finding a new way of using an existing piece of technology—much as the CD player capitalised on the recently invented laser diode. "Mental inventions" were things dreamed up in the head with little reference to the outside world, while "random events" were serendipitous moments when innovators stumbled on something they were not looking for but immediately recognised its significance. The two other sources of ideas were "market research" and "trend following".

When the team plotted the success-to-failure rate of the six different idea factors, the two worst by far turned out to be trend following and mental inventions. Both produced three times as many failures as successes. By contrast, need spotting produced twice as many successes as failures. Market research generated four times more, and solution spotting seven times more successes than failures. But the clear winner in the innovation stakes was "taking advantage of random events", which generated 13 times more successes than failures.

Stopping losers early

Such a taxonomy is clearly a powerful tool for predicting winners. The researchers reckon their model gets it right nine times out of ten. In many ways, however, predicting losers is more useful than backing winners. With typically 20 times more failures than successes, that is where the real cost of innovation lies. Weeding out the likely losers early in the innovation chain before development costs escalate would free up untold resources to apply either to widening the search for new ideas, or concentrating all efforts on the surviving few.

At the Innovation Summit in San Francisco, we plan to split the day into two halves, examining first the technological push from within companies, and second the commercial pull from the marketplace. In that

way, we hope to cover the main drivers (the “idea factors” so to speak) that bring innovations to commercial fruition. Above all, the aim will be to see how to deploy innovation as a way of re-inventing the company. With the pace of innovation hotting up, any enterprise that fails to replace 10% of its revenue stream annually is likely to be out of business within five years.

For more details, call Melissa Thoms on +1-212-554-0605 or e-mail americas_customerservice@economist.com.

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* "Why Innovation Fails", by Carl Franklin, Spiro Press, 17-19 Rochester Row, London SW1P1LA, £16.99/$24.95.

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MONITOR

Supercharging the grid

Sep 4th 2003
From The Economist print edition

Alamy

One of the bright spots on America's creaky old power grid is an experimental section in upstate New York, where some superconducting cables are about to be tested commercially

WHATEVER the lessons eventually drawn from the huge power failure—the worst in American history—that cascaded across the north-eastern region of the United States and Canada on August 14th, two things have become clear. The first is that managing the supply of and demand for electricity on a modern distribution grid—with thousands of generating stations being cranked up and wound down, and millions of independent users flipping equipment on and off—is the most daunting balancing act in the whole of engineering. Let demand momentarily outstrip supply by the tiniest fraction and generators quickly become overloaded, circuit-breakers trip and the lights go out.

The second thing to become clear is that while deregulation has increased competition and lowered prices for consumers, it has slowed the pace of modernisation of the grid. In particular, it has failed to offer local power generators a big enough carrot (or threaten them with a big enough stick) to upgrade their transmission links and make all the software used for balancing local loads work harmoniously together.

The one bright spot is in Albany, New York, where an experiment is under way to prove that, after years of frustrating disappointment, superconducting power transmission can be made to work commercially. Ever since superconductivity was discovered in the early 20th century, power companies have been hoping to use the phenomenon to cut their distribution losses. But the impractical nature of superconductors themselves has kept those hopes from being realised. That was because the first superconducting materials were effective only at the very low temperature of four degrees Kelvin (4K), at which helium becomes a liquid, close to absolute zero. (Absolute zero is 0K or -273ºC.) The cost of helium and the equipment needed to maintain such low temperatures has limited their use to applications where nothing else would suffice—such as in the coils of MRI (magnetic resonance imaging) machines.

In 1986, however, scientists at IBM Research in Zurich discovered a new class of ceramic materials with superconducting properties at between 77K and 80K, the temperature of liquid nitrogen. This made cooling these “high temperature” superconductors simpler and cheaper.

Unfortunately, other problems remained. The first high-temperature superconductors, known as BSCCO (barium strontium calcium copper oxide) materials, were powdery and brittle. Turning them into wire for

the power industry has proved harder than expected.

To make a high-temperature superconductor, the BSCCO material is first packed into tubes made of pure silver. The tubes are then heated, drawn, rolled and annealed to create a flat tape. The tape, around four millimetres wide and only a tenth of a millimetre thick, is used as the feedstock from which cables are made. But the batch process makes producing long wires difficult.

Being particularly brittle, the tape tends to break if bent too much. Worse, the BSCCO material loses its superconducting effect in the strong magnetic fields created by an AC (alternating current) transmission system. The upshot, says Philip Pellegrino, president of SuperPower, a superconducting materials company in Schenectady, New York, is that BSCCO cables simply cost too much. It is difficult to justify paying $200 to transmit a kiloamp over a distance of one metre when copper cables cost only $10 to $25 to do the same job.

But interest in superconducting distribution remains strong. Potentially, it could halve transmission losses in AC systems. Superconductive cables can also carry three-and-a-half times as much power as comparable copper cables—an important factor in crowded inner cities.

SuperPower's response has been to couple the latest high-temperature superconducting materials with a new production process, in a bid to make superconducting cables cost the same as copper cables. It hopes to achieve this by 2010. The company's choice of a second-generation material is YBCO (yttrium barium copper oxide). The production process, which works continuously rather than in batches, is based on research it has carried out with the Department of Energy's laboratories.

The process starts with a nickel alloy strip, one centimetre wide and a few tens of microns (millionths of a metre) thick, which is coated with a buffer layer using thin-film deposition techniques borrowed from the semiconductor industry. The buffer layer forms a template for the crystal structure of subsequent layers of YBCO that are grown on top. The final step is to deposit a silver layer to protect the YBCO and act as an electrical contact.

To prove the technique's worth, SuperPower is leading a $26m project to install a superconducting distribution cable to power parts of Albany. A section of first-generation cable measuring 350 metres will be installed in Niagara Mohawk Power Corporation's grid. Later, a 30-metre section of the first-generation cable will be replaced with a second-generation cable. The work is backed by $6m from the New York State Energy Research and Development Authority and $13m from the Department of Energy's superconductivity research initiative. The British industrial gases company, BOC, will provide the cooling and Sumitomo Electric of Japan will make the cables.

Work on the project began in November 2002, and the first-generation cable is expected to be carrying power by 2005. The second-generation segment should go into service in 2006. It could take several more years to see whether, finally, the promise of superconductivity can be turned into a commercial reality.

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MONITOR

Falling, flailing, virtual doll

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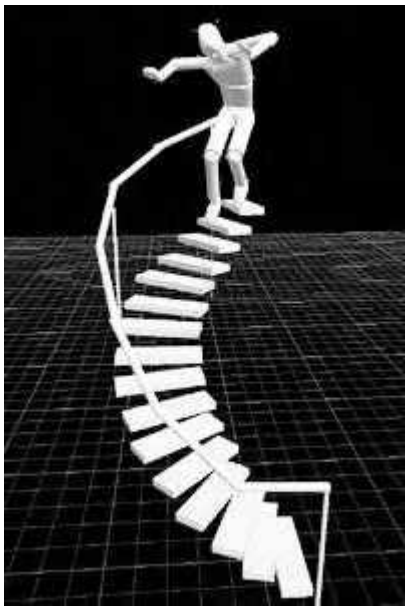
Unlike the rag dolls thrown lifelessly from windows on film sets, virtual stuntmen flail and stagger just like real people



Virtual stuntman feels its way

MOST stuntmen would draw the line at having their bodies sliced in half or blown to pieces. That is not the case with “Endorphin stuntmen”, who work around the clock without so much as a complaint, a coffee break or even a pay cheque. What makes them superhuman is that they are, of course, virtual.

Endorphin is a piece of software that generates virtual characters. It was developed by an Oxford University spin-out called NaturalMotion. Torsten Reil, the company's chief executive, was doing a zoology doctorate on the study of human motion when he realised the commercial potential of his work. Together with Colm Massey, a mathematician from Trinity College, Dublin, and David Raubenheimer, a zoologist at Oxford, he founded NaturalMotion to develop the core artificial intelligence (AI) component, which the firm calls Active Character Technology (ACT).

This is what provides the verisimilitude to Endorphin characters—whether they be humans, dinosaurs or horses. ACT's body parameters—eg, masses, dimensions and joint limits—are based on real anthropometric data from various sources. Unlike rag dolls, which are typically used when things get too rough for mere flesh and blood stuntmen, Endorphin stuntmen interact with their surroundings in realistic ways. Knock over an Endorphin character and instead of just flopping to the ground, it might stagger and regain its foothold, or fall and hold its head to prevent further injury. Prod them, and they will try to regain their balance. If tackled by a football player, they fall realistically—possibly even clinging to their opponent. The virtual stuntmen react exactly like real people to punches, falls, explosions or whatever is thrown at them.

And unlike simple animation, characters developed with ACT think, learn, adapt and evolve. They have neural networks for brains and their movements have been choreographed by people with PhDs in biomechanical motion. But users of Endorphin do not have to be able to program AI systems. All they do is give the same sort of instructions that a director would give to an actor (“When he grabs you by the head, pull away, trip over that box and roll into a ball”). The only parameters a user has to set are the direction and magnitude of the force being applied to the stuntman, and which body area is to be hit.

According to the developers, ACT could have commercial applications outside the entertainment industry. The technology can be applied to visual simulation or biomedicine. NaturalMotion has recently been awarded a grant from Britain's Department of Trade and Industry to develop applications for orthopaedics. For instance, ACT could be used to analyse the gait of a cerebral palsy sufferer requiring orthopaedic surgery. The system would record the way the person currently walks, and then look at ways of improving his gait by, say, moving the attachment point of a muscle, or rotating the femur so it is in a different position. Because ACT characters have the functional equivalents of all the important muscles, nerves and bones of a real person, the simulation should help predict the outcome of corrective surgery.

Back in the studio, “Endorphin delivers levels of realism previously only possible with expensive motion-capture systems,” says Geoff Shaw, NaturalMotion's product director. The first to exploit Endorphin in a Hollywood production is The Moving Picture Company, a digital post-production company based in London. Endorphin characters are being used in battle scenes in a Warner Brothers production of the Greek epic, “Troy”.

Traditional motion-capture animation involves putting optical or magnetic markers on a real person in a studio. The markers then capture the person's motion in three dimensions. The motion-capture data are then sent for “rendering”—ie, overlayed with the features of a real person. This is a costly and time-consuming process. With Endorphin's virtual rag dolls, motion-capture data can be created in minutes and no one gets harmed in the process. “By contrast, real motion-capture is performed by real people with nerves and feelings and wives and lawyers—so we can't hit them quite as hard,” says Julian Mann of The Moving Picture Company.

Starring Brad Pitt as Achilles, the shooting on “Troy” started last April. That means the first Endorphin characters should be coming to a cinema screen near you next May.

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MONITOR

Voltage ahoy

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The American navy's all-electric ship project may be adrift, but it is helping to spark innovation on dry land

TEN YEARS ago, the United States Navy embarked on the ambitious goal of building an all-electric ship. Considered an entirely new class of vessel, it would rely on superconducting machinery for propulsion and power generation. As such, it was expected to be more economical, need a smaller crew, require less maintenance and allow improved automation of the various onboard systems. Above all, it would be a quieter vessel—something sailors, mindful of preying submarines, find reassuring.

Unfortunately, superconducting power systems are still about five times too weak to generate the 25,000 to 50,000 horsepower required to run a ship. That was why the Bush administration placed the project on hold. Even so, research on the project has continued apace.

One such area being addressed is how to distribute a stable electric current across a ship-based grid. This is the problem that has confronted engineers trying to make America's power grid less prone to the kind of load imbalances that plunged the north-east into darkness last month.

The idea has been to design what David Flamm of SRI, a contract research company in Palo Alto, California, that has worked on the project for more than five years, calls a “hybrid dynamical system”. It is a hybrid because it uses software algorithms to combine two separate requirements: one is to ensure that the grid is capable of operating continuously, while the second is the ability to deal discretely with any system changes on the grid.

An all-electric ship would be built around the concept of “power electronic building blocks”—effectively, a semiconductor-based power controller that is programmable. It would have a computer and an interface that let it talk to other data networks in the ship. By doing so, it could actively monitor the power grid on board the ship—to ensure that it did not get overloaded at any time. Engineers trying to prevent grids from becoming overloaded on dry land might learn a trick or two from the navy's researchers.

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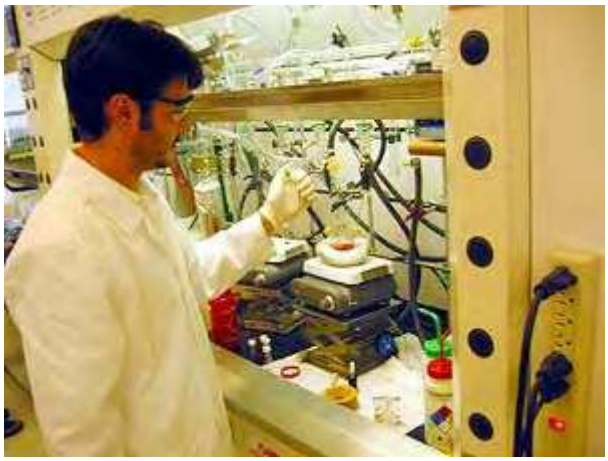
MONITOR

Solar cells come down to earth

Sep 4th 2003
From The Economist print edition

Solar cells are still ten times too expensive for use in housing. Recently developed nanorod composites could change that



Nanorod stew

MILLIONS of people around the world would like to heat their homes and run household appliances with solar power. But the cost of doing so puts it out of the question. The first problem is that the cells convert only 10-15% of the radiation from the sun into energy. The second is that the photovoltaic (PV) material used is a form of silicon that has to be made under high-vacuum conditions and heated in special kilns to 1,400ºC. That makes photovoltaic solar cells horrendously expensive.

Consider the small model home set up in Raleigh by the North Carolina Solar Centre. Its 3.6-kilowatt PV system generates about half of the house's electricity needs. But at $9 per watt, the system would cost a homeowner around $32,000 to install.

How to bring such costs down to a more manageable few thousand dollars? One answer that is attracting attention is to use carbon “nanorods”, superstrong cylinders of carbon atoms that are 75,000 times thinner than a human hair. If a group at the Lawrence Berkeley National Laboratory in California achieves its ambitions, carbon-based solar cells could cost as little as a tenth of the price of today's silicon-based versions.

The work started in the late 1990s, when Paul Alivisatos and his team at the University of California, Berkeley, developed nanorods with electrical characteristics similar to semiconductors. By placing these flexible nanorods in a polymer solution, the group found it could produce a composite material that had the elasticity and pliability of plastic, but capable of converting solar rays into electrical energy. Inorganic nanocrystals behave a lot like polymers, says Dr Alivisatos. For instance, they can be processed while still in the form of a solution. “You gain a lot of the processing advantages of polymers,” he says. Scientists had been working with plastics as an alternative to conventional solar cells, but found that they did not conduct electricity particularly well.

Compared with the arduous process of fabricating conventional solar cells, making the hybrid nanorod polymer composite would be more like manufacturing cheap plastic laminates. “There's a real chance that could change the economics of how these things are produced,” says Dr Alivisatos.

That could solve the cost part of the solar energy equation. But what about the conversion efficiency? So

far, the conversion efficiency of nanorod polymer cells has been little more than 2%. However, Dr Alivisatos is confident that the efficiency can be improved considerably.

So, too, is Japan's leading maker of building materials, Matsushita Electric Works in Osaka. MEW, which is famous for its resin moulding and processing technology, has joined forces with Nanosys, a start-up co-founded by Dr Alivisatos in Palo Alto, California. The partners plan to develop nanorod composite cells for the construction materials industry in Asia. Nanosys and MEW (a subsidiary of Matsushita Electric Industrial, the world's largest consumer electronics maker) hope to release commercial versions of the new solar cells by 2007. The plan is to incorporate the composite solar cells into decorative roofing tiles or sidings, says Stephen Empedocles, a co-founder and director of business development at Nanosys.

The company is now tweaking the composite to increase its conversion efficiency. To do so, it is taking solar cells that Dr Alivisatos's group made in the laboratory and “doing them correctly”—ie, using industrial-grade equipment beyond the scope of a university group. Dr Alivisatos thinks that if he can get the nanorods to point in a single direction, rather than randomly, he can boost the composite's energy efficiency. If that can be increased to 10%, Nanosys will have the basics for producing solar cells that are easy to work with and cheap to make. In June, the National Science Foundation awarded Nanosys a research grant worth $850,000 to develop the nanocomposite solar cell further.

Nanosys also has a contract with the American government to develop more powerful solar cells for use on board satellites. With no expense spared, these can have efficiencies of 30% or so. Can nanotechnology push that even higher? In principle, there is nothing that says nanorod composite cells cannot operate as well as the best “multijunction” cells made from gallium indium phosphide and gallium arsenide. If we could put more advanced techniques into the solution processing, says Dr Alivisatos, the efficiency could go quite high. “We simply don't know what the limit is.”

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MONITOR

Ups and downs of chip design

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Wiring chips on the diagonal would remove many of the up and down detours that connections have to make today

IN THE semiconductor industry, the shortest distance between two points is not necessarily a straight line. A modern chip carries hundreds of millions of microscopic transistors, which need wiring together in specific ways to make the device work. Metal tracks, only thousandths of a millimetre across, wend their way over the chip's surface to connect various parts together. When tracks need to cross one another, they drop down or rise up to another wiring layer—like an office worker going upstairs, across the building and back down again, to get around a blocked corridor.

All the tracks on the first layer run in one back-and-forth direction. All the tracks on the next layer run at right angles. Metal plugs called “vias” connect tracks on one layer to those on the next, through carefully aligned holes. As a result, any connection between diagonally opposite corners of a chip will be a series of zigs and zags. No wonder this wiring scheme that almost all chips use is known as “Manhattan routing”.

As chips have become more complex, so has the wiring. The software that works out where to put the transistors has been forced to push them apart to make room for the wiring to connect everything up. More complex wiring also needs extra layers, to ensure all the necessary connections can be made. Each extra wiring layer makes production more complicated and increases the chance of errors. It could take nine interconnecting layers to ensure that all the hundreds of metres of connections on a chip measuring only ten millimetres square can be made successfully.

A consortium of chip companies, production equipment makers and design tool providers has got together to change that. If their so-called “X Initiative” can be made to work, the result could be a whole new generation of chips that are faster, cheaper and more powerful. The consortium's idea is to wire chips on a diagonal as well as on a Manhattan grid. This takes a minimum of four connecting layers, but gives more freedom to the software that works out where to put the chip's transistors and how to wire them together. With wiring running in eight directions instead of four, congestion is reduced and there is less likelihood of transistors being pushed apart to make way for the wiring.

According to Aki Fujimura of Cadence Design Systems, a semiconductor tools company in San Jose, California, and a member of the X Initiative's board, the use of diagonal wiring can reduce the area of a chip by 10-20%. This has a double impact on chip cost, because it allows more of the smaller chips to be made on each wafer of silicon, improving the yield and reducing the chance of each device being ruined by a random defect. Diagonal wiring also reduces the number of interconnections (or vias) made between layers by up to 30%. Since vias are difficult to make at the dimensions used in advanced manufacturing processes, cutting their numbers boosts production yield still further.

An additional advantage of diagonal wiring is that it reduces the average length of wire needed to link two circuit nodes. The nodes get closer together because they no longer have to make room for wiring, and the wiring runs more directly between the nodes. With less distance to travel, this spells faster chips and lower power consumption.

The X Initiative has been working with partners up and down the semiconductor supply chain, to ensure all the issues are being addressed. For instance, STMicroelectronics, a European chipmaker, has designed and built a chip using the X routing, and equipment maker Applied Materials has tested the approach with some of its advanced manufacturing processes. But who, ultimately, will use it? Mr Fujimura expects early adopters to be in the portable consumer electronics business where power consumption is crucial, or makers of graphic processors where all-out performance is vital. Given their ability to knock 25-30%

off the cost of building a leading-edge device, X-routed chips are expected to be in production next year.

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MONITOR

Nanomaterials move up a notch

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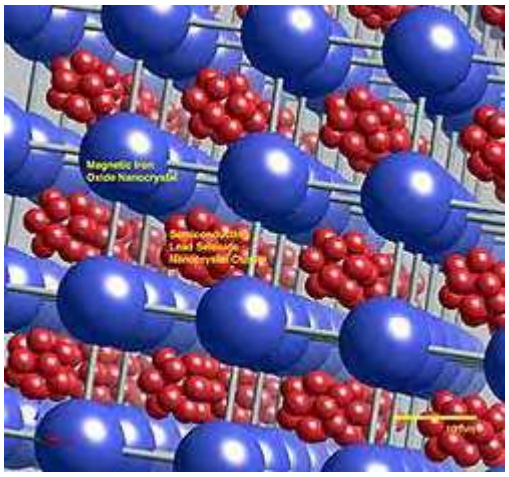
Novel materials, made by coaxing nanoparticles to assemble themselves into three-dimensional patterns, offer intriguing magnetic and optical properties



Metamaterial assembling itself

THE buzz that has attracted researchers and investors alike to nanotechnology is its promise of materials capable of assembling themselves out of a stew of chemicals into atomic arrangements that offer valuable new properties. Researchers have now gone a step further, by coaxing clusters of atoms to assemble themselves into even larger, three-dimensional structures, which may offer both novel properties and a new approach to the emerging technology of "spintronics"—a form of electronics that relies on manipulating the quantum-mechanical spin on an electron.

Researchers at Columbia University in New York, IBM and the University of New Orleans have devised a chemical way to create very small clusters—ie, nanoparticles—of specific compounds. In a separate step, these nanoparticles have been mixed with other nanoparticles in a manner that encourages the two types to assemble themselves into regular crystalline structures. The resultant materials may have novel characteristics because they bring different nanoparticles so close together that their electrical, optical and magnetic properties interact.

"To date, self-assembly has been about single atoms," says Christopher Murray, a manager at IBM Research in Yorktown Heights, New York. "Now, by precisely selecting the ratios of the sizes of the two compounds, it allows [us to create] a family of crystals."

The researchers first created separate nanoparticles of two materials, lead selenide and magnetic iron oxide, with precise dimensions. Lead selenide, a semiconductor, was chosen because it can be formed into "quantum dots", which have useful properties at the wavelengths vital to optical communication. Iron oxide was selected for its magnetic properties. The nanoparticles were then brought together so they assembled themselves into regular 3-D crystalline arrangements called "metamaterials"—ie, materials with properties that would otherwise be unattainable.

The nanoparticle self-assembly technique opens up the possibility of creating metamaterials with new magneto-optical properties. For instance, the way the material behaves could be changed by adjusting the size of the nanoparticles, the ratio of their sizes, and the way they pack together. That would change the way the magnetic field of the iron oxide interacts with the semiconducting behaviour of the lead selenide. Three different packing symmetries give three different sets of properties, notes Dr Murray. In some of the packing arrangements, the quantum dots are huddled together, and thus are less susceptible to the magnetic field from the iron oxide nanoparticles. In other arrangements, the quantum dots are more widely dispersed and so more influenced magnetically. The team is already thinking of applications for metamaterials as read-heads for future generations of hard-disk drives or optical modulators for communications.

The 3-D self-assembly technique should also provide insight into spintronics. The immediate opportunity to have a technical impact is if one could design more effective magneto-optical materials, says Dr Murray. While more distant, the pay-off from spintronics could be even more revolutionary than anything nanotech has stirred up so far.

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MONITOR

Soul of a newer machine

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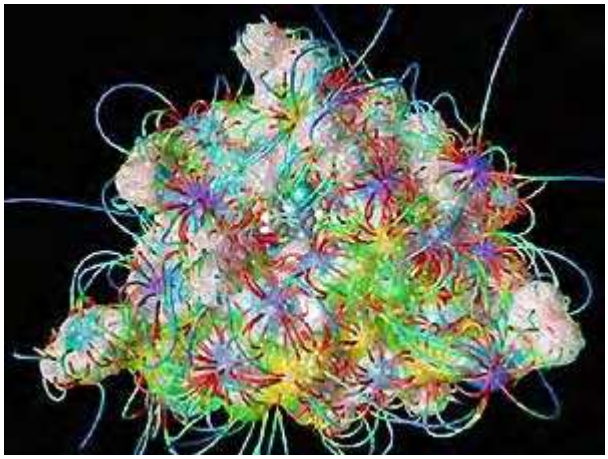
The first of IBM's "Blue Gene" supercomputers is finally taking shape



Genetic grist for Blue Gene's mill

WHATEVER happened to Blue Gene, IBM's ambitious attempt to build the world's fastest computer? The project, launched in 1999, called for the construction of a "massively parallel" computer with over 36,000 processing chips, each containing 32 processing cores roughly equivalent in power to a desktop PC. Harnessing all that computing horsepower—more than one petaflop, or 1,000 trillion floating-point calculations per second—would, it was hoped, allow scientists to simulate the folding of a protein, an extraordinarily demanding task which might help to streamline the discovery of new drugs. The idea was to achieve all of this within five years—something that even enthusiasts thought ambitious.

Four years on, the chips that will power the first Blue Gene computer are now being manufactured and tested. But the plans have changed somewhat. IBM's intention was always to apply what it learned in building Blue Gene to its commercial supercomputers. So the project is now pursuing two different architectures.

The first, called Blue Gene/C, is the original clean-sheet design. The second, called Blue Gene/L, is a new general-purpose, scaled-down architecture that draws on existing commercial technologies to produce a machine which, all being well, will be running by late 2004 at around a third of a petaflop (a thousand trillion calculations per second).

That does not mean that IBM has lowered its ambitions. "We decided to do this as a step along the way," says Bill Pulleyblank, the director of the Blue Gene project. "To go right to a petaflop was probably a bigger jump than was prudent." He points out that a third of a petaflop is equal to the combined computing power of the world's 500 fastest computers (listed at www.top500.org).

Blue Gene/L, which is being built in conjunction with the Lawrence Livermore National Laboratory in California, will serve as a test-bed for a number of Blue Gene technologies. In particular, it will allow IBM to test the "message-passing" scheme used to send information from one processor to another. In a machine with tens of thousands of processors, the bottleneck is not the lack of computing power, but the ability of each processor to get hold of the information it needs.

Depending on how well it works, IBM will then draw upon the C and L architectures to build a much faster machine, known as Blue Gene/P. This will be used to simulate protein folding and to attack other

problems in computational biology. It will appear later than originally intended, but will also be faster. Achieving speeds a mere three times faster than Blue Gene/L, says Dr Pulleyblank, would be “too modest”. Blue Gene/P will probably be capable of several petaflops.

The Blue Gene/L architecture is a clever trade-off between industry-standard components and exotic architectural innovation. It will contain over 66,000 processing chips, each containing two processing cores borrowed from IBM's PowerPC 440GX processor, plus extra floating-point units to speed calculation, and on-chip memory. These chips are divided into 1,024 nodes of 65 chips each. Each node has one co-ordinator chip, running the Linux operating system, that farms out work to 64 subordinate chips.

Five separate overlapping networks link the processors to each other in different ways, including torus (doughnut-shaped) mesh and tree configurations. Standard “gigabit Ethernet” networking gear connects the co-ordinator chips to the outside world. The resulting machine is, in effect, a 1,024-node Linux “cluster” with 64 additional processing chips inside each node.

This makes Blue Gene/L similar enough to existing Linux clusters (which are an increasingly popular form of supercomputer) to be easy to program, but powerful enough to attack entirely new kinds of problem. The rise of Linux since the Blue Gene project began has, says Dr Pulleyblank, been “a godsend for us in many ways.” The Blue Gene project has become more ambitious than originally planned. But thanks to Linux, it has also become more practical, and more likely to produce commercial spin-offs.

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MONITOR

A web address for every car?

Sep 4th 2003
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Will the car—that mainstay of the industrial age—become a vehicle for the information age as well?

Science Photo Library

Directions, parking space and a movie, please

PEOPLE inside and outside the motor industry have talked about the “networked car” for more than a decade. With the basics already in place, it is not hard to see why. Cars already contain dozens of microprocessors. Satellite services, global positioning systems and on-board television screens are often seen in cars as well. In addition, the widespread use of text messaging means that many drivers must juggle not only mobile-phone calls but also e-mail.

Another tantalising development can be seen in Japan, where more than 7m drivers now use the government's Vehicle Information and Communication System (VICS). This allows current information on traffic conditions, temporary speed limits and even parking spaces to be zipped to cars fitted with a VICS reader. The system runs over infra-red, radio waves and FM radio bands. Drivers can get information in three formats: plain text, simple graphics and detailed maps. It is not hard to imagine such a system being used to download songs or even movies to cars.

But imagining and achieving are different things. For broader use, the Japanese system qualifies as a mere prototype, thinks David Benson of SRI Consulting Business Intelligence of Menlo Park, California. Moving from maps and road conditions, derived from information readily available at Japanese police stations, to an actual business built around so-called “download kiosks” means overcoming several obstacles.

First, cars will have to come with a built-in wireless system if the networked car is to become a reality. Actually, that is not as far off as it may seem. The OnStar satellite network installed in General Motors' luxury models is an early version. There is also a lot of work going on in adapting local-area networking protocols such as WiFi and Bluetooth for communicating with cars on the road. Bluetooth is expected to be fitted to some GM models by late 2004. Meanwhile, DaimlerChrysler has been testing UMTS, one of the third-generation mobile-phone systems, as a link to vehicles with a specially adapted PC on board. Mr Benson predicts that carmakers will eventually settle on a standard known as DSRC (dedicated short-range communications) which runs at 5.9 gigahertz, similar to automatic toll-taking equipment used in America and elsewhere.

Second, the price of an information-serving kiosk will have to come down substantially. Models that have been built to date cost anything from $25,000 to $100,000, depending on the complexity. They need to fall by a factor of three or four. For comparison, a typical petrol pump costs about $15,000.

Finally, a realistic business model has to be developed. The big petrol retailers have expressed some interest in content kiosks as a way of increasing the profit in their notoriously low-margin business. However, most have remained wary since going digital has backfired on them before. It was widely thought at the time (wrongly as it turned out) that converting the forecourt from mechanical to digital pumps would let them sell advertising and coupons. Barring some unforeseen government intervention, Mr Benson believes it will be at least five years before American and European drivers gain access to any sort of roadside content—and that includes even the limited type that is currently available in Japan.

A more immediate market may come from long-distance road haulage. IdleAire Technologies of Knoxville, Tennessee, is installing “travel centres” at truck stops. These offer electricity and air conditioning to truck drivers sleeping in their cabs. That allows them to turn off their engines and still keep any refrigerated goods fresh. Along with these services comes TV, telephone and internet access plus the option to download movies. If IdleAire succeeds, it will show how such services can be expected to spread to other vehicles.

In the meantime, other ways of using cars as media platforms are beginning to beckon. Ralph Terkowitz, vice-president of technology at the *Washington Post*, says the newspaper group is thinking hard about how to take advantage of the widespread use of mobile phones and GPS navigation terminals in cars. The obvious business model would be to feed advertising-supported content to mapping terminals inside subscribers' vehicles, perhaps even building an additional monthly charge into the newspaper's subscription. What urban motorist would not pay to get information about available parking meters or traffic jams? The *Washington Post* has not yet committed resources to such a scheme. But if cars become as fully networked as experts expect, the newspaper clearly has no intention of being left behind at the lights.

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MONITOR

Fountain of truth?

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An ambitious new text-analysis system mines the web for hidden trends

IN MANY offices, the water cooler is where people go to exchange gossip and find out what is really going on. Now a researcher at IBM's Almaden Research Centre in California is trying to create the equivalent for the internet.

Andrew Tomkins started out applying automated language-analysis techniques to web pages, to try to figure out what they were about. He realised that if this process was applied across billions of web pages—in effect, looking at the entire web at once—it would be possible to spot trends. A new film, for example, might have received terrible reviews from critics, but proved popular among middle-aged women. A new camera model might have some features that are popular, but others that users find too complicated. In short, there might be information hidden on the web that cannot be gleaned from any individual page, but becomes apparent when many pages are examined together. And that information could be of great commercial value.

The result is a new online service called WebFountain. A big computer at IBM hoovers up web pages and information from other sources such as newsgroups, syndicated content and newswires. Each incoming page is analysed to determine what language it is in. The context—a news report, a page on a company's website, a web-log entry—is determined. Verbs, nouns, adjectives, proper nouns, place names and even entire phrases are extracted, and are analysed for positive or negative connotations. The page is also classified by category—is it about baseball, Iranian politics or global warming?

All the results from these various tests are then fed upwards into another layer of software that gathers statistics across multiple pages, counting references to particular words or phrases in particular contexts, and looking for trends. All of this is then wrapped up in another layer of software that allows users to query the system remotely across the internet as a “web service”.

Dr Tomkins hopes to create an ecosystem of service providers who will use the WebFountain service to analyse the web in different ways to serve different markets. A clipping service, for example, which monitors the press for mentions of a particular company or product, could easily be constructed using WebFountain. A corporate public-relations firm could use WebFountain to monitor public attitudes towards its clients or track which other firms they are mentioned alongside. How have new products been received by different age groups? Are customers grumbling about a product in one part of the world, but not in another? WebFountain can send an alert if anything unexpected happens, such as a sudden surge in mentions of a particular keyword.

WebFountain is currently being tested by a number of financial-services, pharmaceutical and entertainment companies. The tool has been used by BP, an energy company, to give insights into its current reputation. Rather than relying on market research, which takes time to collect, WebFountain could allow firms to follow consumer trends and reactions as they happen. IBM calls this “intelligent foresight”. No doubt some people will say it sounds a little intrusive. But all WebFountain does is reveal information that is hidden in plain sight.

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MONITOR

Who watches the watchers?

Sep 4th 2003
From The Economist print edition

With more and more video cameras remotely watching public and private spaces, clever automation is needed to keep an eye on things

Gettyone

I swear I saw something move...

THERE are more than 1m closed-circuit television (CCTV) cameras in use in Britain, keeping a beady eye on public places in a bid to fight crime and control traffic. This Big Brotherly obsession has caught on elsewhere as concerns about security have mounted since the terrorist attacks of September 2001. But as the number of remote video cameras has risen, so have the problems of dealing with their output. There is not much point in aiming a CCTV camera at a car park or road if nobody is watching its monitor.

Of course, many security cameras do not actually need watching all the time. They need watching when something in the image changes significantly. That is why CCTV monitors are stacked in banks in security offices, so one person can scan their otherwise stationary images for changes.

Now, engineers at Roke Manor Research, a Siemens subsidiary based on the south coast of Britain, have come up with an automated way of keeping an eye out for change. The research lab's “video motion anomaly detection system” analyses live CCTV images for out-of-the-ordinary events—bringing them to the operator's attention by highlighting them on screen.

The underlying technology does not care what it is looking at so long as the CCTV camera is still. It can therefore be used to monitor everything from drivers doing U-turns on a busy road to kids climbing a security fence.

According to Richard Evans, a senior researcher on the project, the system works in two parts. In the first, a video motion processor tries to find localised features in the live image that are distinct enough to be tracked from frame to frame. These features may be something that a human could recognise—for instance, the edge of a car bumper (fender). The reference points may be meaningless to humans; what matters is that they can be tracked.

The second part of the system builds up a statistical history of how such features normally move through the image, tracking their speed and direction. When the CCTV image changes, the system can check against what it has “learnt” to decide whether the new event is so unusual that it should be brought to an operator's attention.

Mr Evans says the system is simple to set up because it learns what the normal scene is like from its CCTV input. This means it does not need special programming to detect particular types of unusual events, and can cope with unforeseen events as well.

Because it is constantly learning, the Roke Manor system does not get confused by changes in light levels, or by the way a video camera's picture quality deteriorates with age. And it can cope with hundreds of moving features at once, regardless of the direction in which the objects are heading.

Roke Manor Research says the system will be useful for spotting all sorts of unusual situations in CCTV images—from swerving vehicles to foxes crossing a road. Because the system knows how particular features usually move through its image, it can also pick out speeding cars in traffic or highlight people

running among a crowd of walkers. That same sort of discrimination can help pick out people climbing a security fence next to a busy pavement.

The alerts that the system generates can be used to highlight an anomalous situation on screen. Alternatively, it can be used to set an indexing point on a video tape of the CCTV output—to make it easier for security officers to find unusual events later.

Human beings will, of course, still be needed to watch the screens for alerts, or to review the tapes after an event. But at least the technology will be there to help the watchers watch more effectively.

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MONITOR

Uncrackable beams of light

Sep 4th 2003
From The Economist print edition

Quantum cryptography—hailed by theoreticians as the ultimate of uncrackable codes—is finally going commercial

IN THE 1992 film “Sneakers”, the ostensible research topic of one of the main characters was something called “setec astronomy”. This was an anagram of the words “too many secrets”. The research was supposed to be about developing a method for decoding all existing encryption codes. Well, if that were ever the case, it certainly isn't any more—thanks to a start-up in Somerville, Massachusetts, called MagiQ.

MagiQ is in the final stages of testing a system for quantum cryptography, which it plans to release commercially within the next few months. Encryption engineers have long waxed lyrical about quantum cryptography, but this is among the very first commercial implementations. The advantage of quantum cryptography schemes is that the code they generate are simply not—even in theory—breakable.

The scheme devised by MagiQ, called Navajo, does not use quantum effects to transmit the secret data. Instead, it is the keys used to encrypt the data that rely on quantum theory. If these keys are changed frequently (up to 1,000 times a second in Navajo's case), the risk that an eavesdropper without the key would be able to decrypt the data can be proved mathematically to be zero. Of course, given the key, the task would become a trivial one.

Navajo transmits the changing key sequence over a secure fibre-optic link as a stream of polarised photons (indivisible particles of light). Because the polarisation reflects the amount of electro-magnetic radiation allowed to radiate at an angle to a light beam's direction, it can be considered to be a measure of the angular dependence of the light.

Should an eavesdropper tap into the secure fibre-optic line, he would disrupt this stream of polarised photons by the very act of observing them—and the tampering could be instantly detected. By changing the key frequently, Navajo could turn an off-the-shelf encryption scheme such as AES (Advanced Encryption System) into something that was essentially uncrackable.

As in all good encryption schemes, Navajo employs an element of redundancy. The sender has two random-number generators. The first is used to generate a random stream of zeros and ones—part of which will form the key. The second random-number generator chooses which “polarisation basis” the sender will use to transmit a given bit of the key. The sender uses two different polarisation bases, which are at right-angles to one another. Only by measuring in the correct polarisation basis can a receiver see which bit was sent—otherwise the result is meaningless.

For each bit, the receiver arbitrarily chooses which polarisation basis to use. The sender and receiver then talk over an open channel and find out which bits they measured using the same basis. These bits (about half of the total) then constitute the key. If someone has been eavesdropping, some of these bits will have been disrupted. In that case the receiver will be unable to decode the message, and will thus conclude that someone is listening in.

This much is standard quantum cryptography. What is harder is building the hardware that can do it quickly and cheaply enough to be commercially viable. MagiQ is in a race with a Swiss company called ID Quantique to be the first to do so, and currently appears to be in the lead.

Of course, if the quantum signal could be transmitted wirelessly, it would liberate users from the cost and constraints of a fibre-optic line. Bob Gelfond, MagiQ's founder and chief executive, is coy about the possibility. He admits that his firm is working on the idea, but is not saying anything at the moment.

For the time being, Navajo requires a dedicated fibre-optic link, which only large corporations or governments are likely to have. And it currently works only at distances of up to 50 kilometres. Any longer than that and random interference degrades the stream of photons and makes them unusable. But within these constraints, Navajo is fairly cheap. MagiQ plans to sell it for $50,000 a set.

Given the glut of unused optical fibre buried beneath the streets of the world, MagiQ is optimistic about Navajo's prospects. Andrew Hammond, a vice-president at the company, reckons the market could potentially be worth more than $1 billion a year, with much of the business coming from firms with valuable intellectual property, such as drugmakers and aircraft companies.

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MONITOR

More light than heat

Sep 4th 2003
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A new sort of nanoglass would allow offices to stay bright but remain cool

AS THE summer comes to an end in the northern hemisphere, people in glass-walled office blocks will be letting out a sigh of relief. With inadequate air-conditioning, the sweltering temperatures inside such buildings is a direct consequence of the original greenhouse effect. Sunlight coming through the windows heats up the internal air which has nowhere to go as the air-conditioning struggles to cope. So the mercury rises.

What is needed is a glass that lets in light but keeps out stifling heat. Such glasses exist but are generally considered a luxury for office blocks in gloomier parts of the globe. One version consists of a thin layer of silver sandwiched between plates of ordinary glass.

Writing in a recent issue of *Applied Physics Letters*, Stefan Schelm and Geoff Smith of the University of Technology in Sydney, Australia, suggest a handy solution to the problem. The window they have developed consists of a sheet of plastic, rather than silver, sandwiched between plates of glass. The plastic, a standard polyvinyl butyral laminate—as used in the space shuttle's windows and in certain car windscreen glasses to block ultraviolet and infra-red radiation—is doped with nanoparticles of lanthanum hexaboride. This substance was chosen because it absorbs infra-red radiation but very little visible light. Because infra-red wavelengths carry the bulk of the heat, this allows the plastic layer to filter out most of the heat.

The nanoparticles do not even have to be particularly pure. Any contaminants created during production are so small, and fortunately transparent, as not to matter. The doped plastic transmits only 5% of the infra-red light, even when the concentration of nanoparticles is as low as 0.02%. The only side-effect is that the glass has a very slight blue-green tinge.

Apart from being practical, the heat-filtering glass is theoretically interesting, too. Mr Schelm did not just happen upon lanthanum hexaboride, but chose it after modelling how conducting nanoparticles absorb light. By adjusting the size of the nanoparticles, or perhaps choosing a slightly different material, Mr Schelm may eventually get rid of the blue-green tinge. In production, the nanoglass could put an end to modern-day sweat shops once and for all.

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INFORMATION TECHNOLOGY

Banking on the technology cycle

Sep 4th 2003
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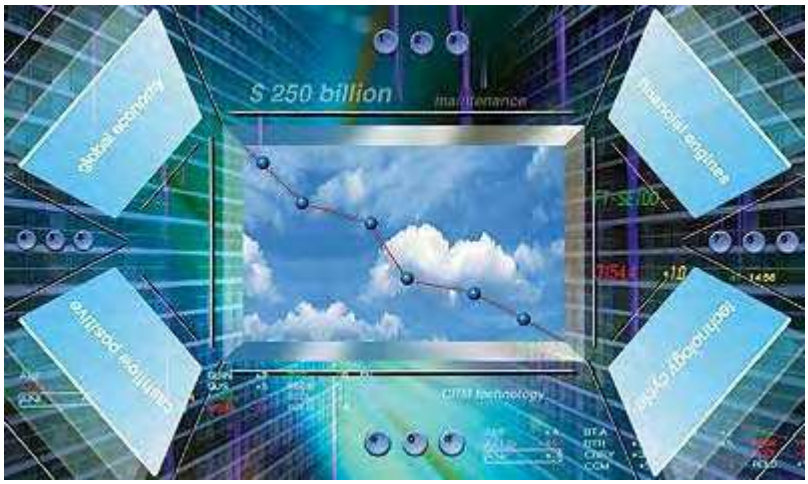


Once the most aggressive users of IT, financial institutions have learned to make do with less. But few can go on cost-cutting indefinitely. Computer- and telecoms-makers could soon be feasting again

WAS it merely three years ago that the entire financial world was moving everything it could on to the internet as rapidly as possible? People were going to bank and trade shares as well as get insurance and loans all through a browser, preferably the one on a mobile phone. No one would write cheques ever again.

Some of that actually came to pass—albeit in parts of Europe and East Asia. But for the rest of the world, banks, securities firms and insurers have too many pressing problems on their hands to think about implementing grand online schemes. All their technological developments now focus on cost-cutting, improved system integration and (believe it or not) the revival of old-fashioned branch networks.

For makers of computers, storage devices and high-speed networks, that is grim news. The fact is that no other sector of the global economy drives capital spending on information technology (IT) as much as the financial-services business does. Until that recovers, the IT slump will continue.

By and large, financial-services firms get good returns from IT. In the hoary debate over whether IT improves productivity, even naysayers agree that, at least in financial services, it demonstrably does so. That has been particularly true for investment banks, where program trading has been moving markets since the mid-1980s. So effective were the buy/sell software suites developed by a handful of American stockbroking firms that Japanese authorities hurried out new regulations to prevent the foreigners from cleaning up. Since then, technology for speeding access to share prices, trading volumes or even the latest market-shifting rumours has contributed handsomely to Wall Street profits.

But the three-year economic downturn has cooled even Wall Street's ardour for fancy new IT gear. Retail and investment banks, as well as insurers, have been forced to take stock. Across the board, few financial-services firms have been spending on IT projects that do not guarantee short-term results. The problem is that most IT projects are lengthy affairs and notoriously “back-loaded”, delivering their pay-off only after a number of years in use. “The field of dreams has been folded up and taken away,” observes Mark Sievewright of TowerGroup, a Reuters subsidiary in Needham, Massachusetts. Still, Mr Sievewright notes that financial-services firms continue to spend heavily on technology. He expects to see worldwide spending top $337 billion in 2003, a 2.3% increase over 2002. The increase is led by a

2.8% rise in America, which overshadows an expected 1.1% drop in Europe (mostly in Germany).

For the institutions, penny-pinching is paying off. Once, investment banks had pricey workstations from the likes of Sun, Hewlett-Packard and IBM on every desk. These used proprietary versions of the Unix operating system. Most of these have since been replaced by scrappy Intel-based PCs running the free Linux operating system. The same goes for the proprietary servers, which have likewise been replaced by Intel-based machines costing a fifth as much to own. In addition, financial-services firms have become more aggressive about out-sourcing parts—in some cases, all—of their IT operations. TowerGroup has tracked 20 such deals worth at least $1 billion apiece over the past 12 months. The biggest was a $4.5 billion deal signed by Bank of America to outsource just the network part of its operations. Add the trend towards moving costly software development projects offshore, first to India and now to China as well, and programming costs can be reduced by nearly two-thirds.

But such belt-tightening can only go so far. Firms have to maintain the systems they have already deployed. Indeed, of TowerGroup's forecast $337 billion, nearly $250 billion will go on maintenance and upgrades of existing equipment, such as the mainframe computers at the core of many large systems. While that leaves some $88 billion for new projects, financial-services firms have a number of urgent needs.

Many of these needs are similar around the globe. For instance, securities firms need to carry on spending so their “quants” (quantitative research analysts) can concoct yet cleverer algorithms for beating the market. Some firms are also looking at new computing concepts, such as grid and utility computing, which promise to make better use of existing resources. But most of what they will do falls into the category of make-do-and-mend. The continuing organisational shifts following mergers and rationalisation measures, for instance, create horrendous systems issues that have to be addressed immediately.

Leading from behind

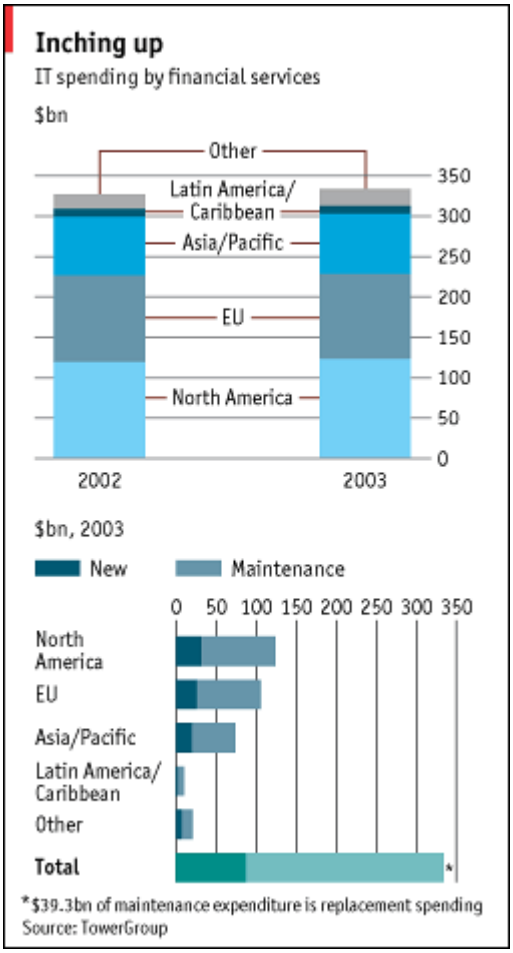
No surprise, then, that while American financial-services firms spend more on IT than anyone else in the world, they are no longer the innovators they once were. “I can't think of anything where the United States is ahead,” says Octavio Marenzi of Celent Communications, a financial-services technology consultancy in Boston. Wireless finance remains a dream in America, though there are hints that things might change when (if) the latest generation of mobile phones takes off. But compared with the rest of the world, America is still struggling in the dark ages of mobile telephony.

Then there are cheques. While much of Europe and Asia eschews the use of cheques because they are slow and expensive, the United States Federal Reserve reckons that more than 60% of all financial transactions in America were paid by cheque in 2001. That is down from 85% in 1979, but the move to electronic funds-transfer remains glacial.

Even with automated teller machines (ATMs), there is room for improvement in America. The United States may be the most zealous deployer of ATMs, but it takes a back seat to Japan when it comes to using them. Japanese consumers not only pay bills via ATMs as well as withdraw cash, but most of their machines are now connected to the internet, so consumers can do other things (glance at their e-mails or download a song) while transacting their business.

Meanwhile, retail banks in America have done a U-turn in their drive to shut branches. These were supposed to die off quietly as the financial world went electronic. Now, the banks realise that branches serve other purposes (eg, selling mortgages and loans) that even the latest generation of ATMs cannot match. So, the banks are begrudgingly upgrading the IT systems in their branch networks. In most cases, these have not been touched for more than a decade—note the antiquated OS/2 operating system that runs many an IBM computer on tellers' desks.

Perhaps the most glaring lack of innovation in American financial services is in trading equities. The governors of the New York Stock Exchange (NYSE) doggedly refuse to abandon their trading floor entirely—despite the way it now creates market inefficiencies for traders to exploit. With NASDAQ having gone completely electronic, and the rise of electronic networks such as Archipelago and Instinet that charge access fees, big market-makers complain about the rise of "access arbitrage"—as market specialists put trades out on the new electronic networks as well as the NYSE, and play market-makers off between the two. Meanwhile, next-day trading—an effort to clear and credit stockmarket trades more efficiently—remains an IT project for, well,tomorrow.



Memories of 1929

"American financial services firms are no longer the innovators they once were"

While it leads the world in processing transactions, America's backwardness in other aspects of financial technology stems from differences in national policy. The United States has a far more fragmented financial-services industry than most parts of the world. In part, this was a reaction to the stockmarket crash of 1929, when the government forced securities houses and banking firms to conduct business separately. Despite measures to deregulate the industry and spark mergers among banks, insurers and securities firms, there are still more than 8,000 financial institutions in America. In Europe, only the heavily regulated German market comes close to that kind of fragmentation.

Different approaches to the market are also a factor. European banks, for instance, typically spend two to three times more on electronic security than their American counterparts. Along with the lack of a single (and easily abused) identifier like America's social security number, that makes electronic banking safer in Europe than the United States. As a corollary, Europe has avoided much of America's growing problem with identity theft. Financial Insights, an independent research company in Framingham, Massachusetts, reckons that identity theft created $4 billion in fraud losses in the United States in 2002—quadruple the level of credit card fraud. Dennis Behrman, an analyst at Financial Insights, expects the problem to balloon to $8 billion by 2006.

A number of IT firms are working to address this issue, most notably ID Analytics, a start-up based in San Diego. But identity theft could create a market opportunity for smart cards in America. Hundreds of millions of smart cards have spread throughout Europe, driven largely by the desire to avoid onerous telephone charges. That has not been an issue in America, where telephone calls are much cheaper and local calls free. Conversely, the United States has embraced e-commerce more readily than Europe because individual credit-card liabilities in America are limited by law to $60. Better still, most credit-card issuers will even waive disputed charges.

CRM stands for crummy

Different sort of risks aside, the one thing that unites financial-services firms everywhere is the need to build a better relationship with their customers. Few things in technology have promised so much and delivered so little as "customer (or client) relationship management" (CRM) software. In implementing CRM, insiders reckon that four out of five such projects fail to deliver the goods. But that has not stopped banks and other financial institutions from piling layers of CRM software on top of one another.

The CRM technology has become so cumbersome in many instances that a customer wishing to open an account at a bank may have to watch as his name, address and other identifying details get entered first for the deposit account, then all over again for the current (ie, chequing) account, yet again for an ATM card, and one more time if a separate savings account or a credit card is desired. Many CRM systems used by financial conglomerates cannot even tell whether a banking customer also

has, say, a mortgage or a stockbroking account with its various subsidiaries.

Not all American banks have implemented CRM technology quite so abysmally. Wells Fargo Bank, for instance, has made considerable progress in selling each customer multiple products (eg, chequing account, stockbroking account, mortgage and so on). Wells Fargo wants each of its retail customers to have eight of its products within the next two years, up from an average of 4.3 today. If it achieves this, it will attract lots of imitators. According to TowerGroup, typical households in America have 12 to 15 financial products supplied by five different institutions.

Another example of sensible implementation of CRM comes from Charles Schwab, a discount broker famed for its intelligent use of information technology. Like others in the business, Schwab has suffered heavy losses and has had to axe jobs and cut costs since the stockmarket bubble burst in 2001. But mostly, the firm remains committed to an iterative development process.

“Few things in technology have promised so much and delivered so little as CRM software”

There are no magic bullets, says Geoff Penney, the company's chief information officer. “It's not about brilliant ideas,” he sniffs. “It's about sticking with things.” For instance, Schwab installed a Siebel CRM system seven years ago, and continues to learn how to use it more effectively. The system is the basis for one of Mr Penney's pet projects—figuring out how best to give advice tools to the myriad types of Schwab customers.

Schwab's website already has a “grading” system that rates different stocks for customers. The company will soon add advice tools so that Schwab clients using the website can get personalised portfolio recommendations based on their investing preferences (as recorded within the CRM system). Next, Mr Penney wants to make these recommendations happen at the push of a button. To do that, the firm is looking closely at grid computing—a concept that allows companies to build a virtual network out of their existing computers and thus tap into large dollops of unused computational power on demand. He thinks push-button portfolio advice will begin to happen in 2004.

Advice services are being worked on at a number of other financial institutions. Financial Engines, a young company in Palo Alto, California, that was founded by Bill Sharpe, a Nobel prize-winning economist, with $200m of start-up money, provides firms such as Vanguard, American Century and General Motors with “advice tools” for their clients and employees. Even Schwab uses its software for one aspect of its advice product. Financial Engines has seen business swell during the past three years to the point where it is now making money.

Such concern about improving customer service will continue to be the core strategy for most financial-services firms. That does not suggest any quick return to the good old days of IT spending. But the continued need for cost savings does have a silver lining. After a while, the benefits that accrue from simply cutting costs disappear, says Celent's Mr Marenzi. Then, firms have to rethink their basic operations fundamentally.

Geriatric mainframes

It has not escaped the attention of IT pundits that sitting at the core of most financial-services firms are mainframe-based systems built in the 1960s and 1970s which are becoming increasingly creaky. Mr Marenzi expects that these will have to be replaced in two or three years' time—not because they are unreliable, but because it will be too expensive to revamp them to handle the coming changes in corporate strategy. Mr Marenzi tells of one bank that continues to send paper statements to its customers who no longer want them, because rewriting the mainframe code to turn off this process is too daunting. He notes that several large banks are beginning to look at how to restructure parts of their operations, and points to two bellwether projects—both involving more than $800m in IT investment. One is at Union Bank of Switzerland and the other at Deutsche Postbank. If these succeed, Mr Marenzi

expects firms everywhere to move quickly in the same direction.

In the interim, financial-services firms will focus on their customer systems, and also start paying a good deal more attention to security issues, as they prepare for the 2006 roll-out of the Basel II regulations that will set tougher standards for managing banking risks. For IT suppliers, that should coincide nicely with the coming wholesale replacement of the financial sector's legacy hardware—those back rooms full of mainframe computers. But before the feasting can commence, the IT industry will have to manage on more meagre fare from its richest customer.

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FLAT PANEL DISPLAYS

Battle for the big screen

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From The Economist print edition

Innovations in the design and manufacture of liquid-crystal displays have increased screen sizes and reduced costs dramatically. Now the LCD is poised to challenge the king of the big screens, the plasma display

Digitalvision

Movie mogul's plaything no more

LIKE many of today's popular technologies, the liquid-crystal display (LCD) took a long time to mature and become a commercial success. Liquid crystals were discovered in 1888 by an Austrian botanist called Friedrich Reinitzer, but it was not until 1968 that the first experimental LCD screen flickered into life at RCA's laboratories in New Jersey. Today, LCD technology is the dominant form of display used in such consumer-electronics gadgets as mobile phones, laptop computers, digital watches and CD players. LCDs rule such sectors for good reason: they are thinner, lighter and use much less power than the light-emitting diodes and cathode ray tubes they displaced.

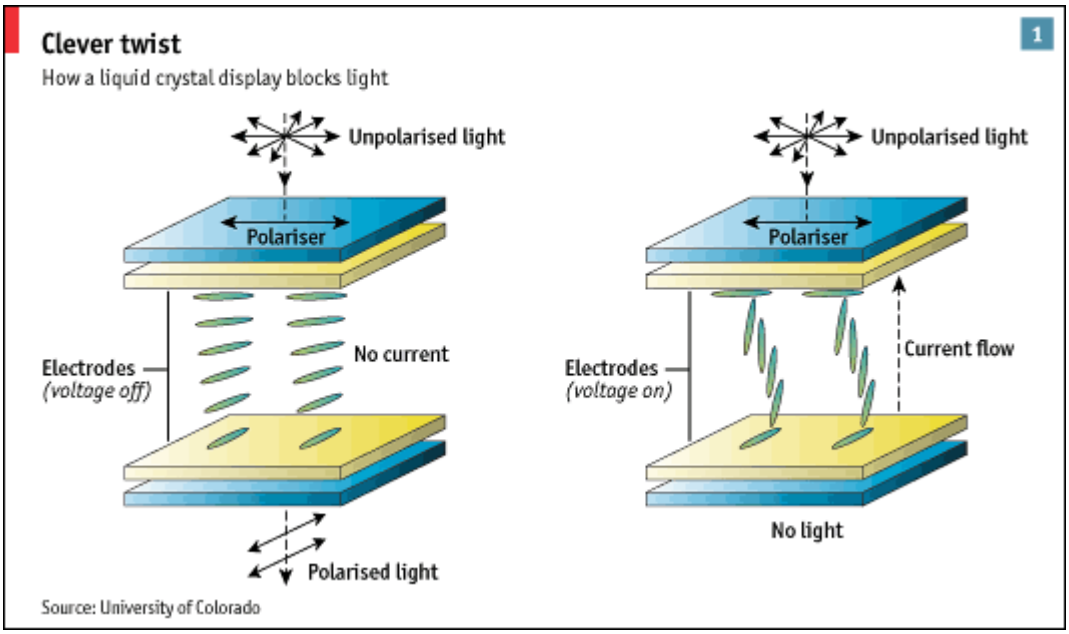
But LCDs do have a problem. For years, engineers have failed to crack the manufacturing constraints that limit such displays to a maximum of around 30 inches (76cm) across a diagonal. That has kept LCD-makers out of the fast-growing (and high margin) market for home-cinema and conference-room displays. With its 50- to 60-inch display, the home cinema would still be a Hollywood executive's toy had the plasma panel not arrived on the scene a decade ago. Unlike LCDs, which rely on the electro-optical properties of materials such as biphenyls that maintain their crystalline structure even when liquid, the plasma panel is a direct descendant of the fluorescent lighting tube that has brightened people's lives since the 1960s.

Though prices are gradually coming down, plasma panels used for home cinemas and conference rooms still command a hefty $7,000 or more. However, that could change dramatically over the coming year. Innovations in materials and manufacturing processes are allowing the LCD to invade the plasma panel's territory—starting with 40-inch displays later this year, and then moving briskly to bigger sizes. The two rival technologies are poised for a clash.

In the Netherlands, Philips Electronics—the fourth-largest monitor-maker in the world, producing 10m units a year—expects 40-50% of its displays to be LCDs next year, up from 5% three years ago. In East Asia, consumers are embracing LCDs even faster than they are in Europe or America. In 2002, LCDs

accounted for less than 5% of all TV sets, computer monitors and other large displays being used around the world. By 2005, they are expected to account for 20%.

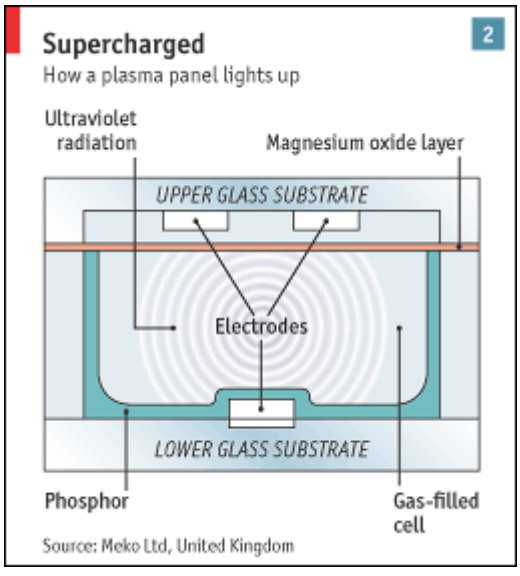
One of the key features of an LCD is that the direction in which the liquid's elongated crystals point is made to twist gradually through 90° between the top- and bottom-most layers of the display (see diagram 1). Normally, light entering one side of the display follows the twist of this spiral “light guide” and emerges unscathed on the other side. However, when an electric current is applied to the material, the spiral staircase of crystals suddenly untwists, and blocks off the light that would otherwise pass straight through the display. The result of this shutter effect is to create dark areas wherever the current is applied. By flipping individual thin-film transistors on and off in a matrix of millions of transparent switching cells etched on to the surface of the display, images can be made to dance on the LCD screen.



Though simpler in concept, the design of a plasma-display panel is no less complex. As in a fluorescent tube, an electric field is made to pass through a gas (usually a mixture of xenon and neon) that is held at a low pressure inside a glass vessel lined with a phosphor coating. The electric field ionises the gas, turning it into a hot, electrically conducting plasma. The excitement causes ultraviolet radiation to be emitted. This strikes the phosphor on the glass walls and makes it glow brightly. But instead of using a large tube, as in fluorescent lighting, a plasma display uses millions of tiny glass bubbles coated with coloured phosphors (see diagram 2).

Decades of development

Both LCDs and plasma displays found early application in laptop computers. It has taken a couple of decades for them to reach their present levels of perfection. One initial problem that affected the LCD in particular was its narrow angle of view. A slight change of the viewer's perspective meant that the image could no longer be seen. That was bad enough on a laptop computer, which is viewed up close and head on by a single user. But it would have been impossible for a television set, which is normally viewed by several people sitting well back.



Early LCDs were also slow at switching their “pixels” (picture elements) on and off, making moving images appear as smeared objects. Plasma panels, by contrast, have always been able to “refresh” their screens rapidly, making them far better at displaying moving objects. Over the past 20 years, LCDs have caught up on refresh rates, thanks to innovations on the back-plane where tiny transistors address each pixel of colour on the screen. The “active matrix” design widely used today keeps its addressing transistors partly on all the time, so they are ready to fire at a millisecond's notice.

Through a glass darkly

By the early 1990s, researchers had perfected a glass fusion process that paved the way to ever increasing screen sizes. At the time, the largest screens that laptops had were little more than eight inches across a diagonal. With the introduction of the third generation of LCD in 1994, glass substrates were being crafted with sizes of more than 13 inches. Since then, engineers have pushed the limit of LCD substrates to more than six feet. As a bonus, they found that, as the glass got thinner, the viewing angle improved.

But it was better coatings for the glass screen that gave the LCD its best leg-up. “The big problem was that the coating on the glass flaked and fell off,” says Pete Bocko of Corning, a glass company in New York state. That problem was due largely to the fact that the coating was only a fraction of a micron (millionth of a metre) thick.

“Since 1994, engineers have pushed the limit of LCD substrates to more than six feet”

The turning point came when engineers struggling with experimental glasses found that one version had a density that was too low, while another's was too high. The difference between them was the number of oxides they contained. Cannily, the Corning researchers simply took the arithmetic mean of the oxide compositions and created a winning combination, known as “1737 glass”, with exactly the right density.

As a result, the price of LCD screens has tumbled. Apart from improved glasses, better coatings and higher production yields, South Korean manufacturers have muscled aggressively into what was essentially a high-margin Japanese preserve. Since 1997, the Korean makers have doubled their output and put a great deal of downward pressure on prices. By some accounts, the present worldwide glut in LCD capacity will continue for some years to come—putting even more pressure on makers to enter new markets. And the one they fancy most is the home-entertainment business.

But the LCD has not stopped there. Two years ago, researchers at IBM discovered a new process for manufacturing LCDs that improves the screen quality and viewing angle even further. For the past 20 years, LCDs have been made by rubbing the glass substrates used to trap the liquid crystal material with a velvet cloth—an effect which causes the elongated liquid crystals to align themselves mysteriously (no one knows quite why) with the direction of the rubbing. The new approach uses beams of electrically charged atoms to perform the crystal alignment. First, a thin layer of diamond-like carbon is deposited on the substrate. Then, the electrically charged atoms are shot by an ion gun at an angle that brushes aside many of the carbon atoms on the surface—to leave lines of remaining carbon atoms. When the liquid crystal molecules are added, the exposed carbon atoms bond to them and form well-ordered rows.

Brighter picture still

Nor does the rivalry between LCD and plasma panels end there. The next generation of flexible displays, based on organic light-emitting diodes (OLEDs), is expected to bring excellent viewability as well as a huge spectrum of colours. Unfortunately, no one yet knows how to make OLEDs properly. And the best produced so far have an operational life of only 5,000 hours—ie, little more than six months of continuous use.

All of which suggests that, in the meantime, the LCD is going to have more than a fighting chance to topple the plasma panel from its perch in the lucrative big-screen market. Unlike the mature plasma display technology, the LCD is still evolving fast. One recent LCD from Sharp's laboratories in Britain provides stunning 3-D effects for only 50% more than a conventional 2-D display. Meanwhile, IBM has started selling an LCD screen with a resolution so high that, from a distance of 18 inches or more, the human eye thinks it is looking at the real thing rather than a digital image. So, if you are thinking of splurging on a super-big screen, you may want to wait a while.

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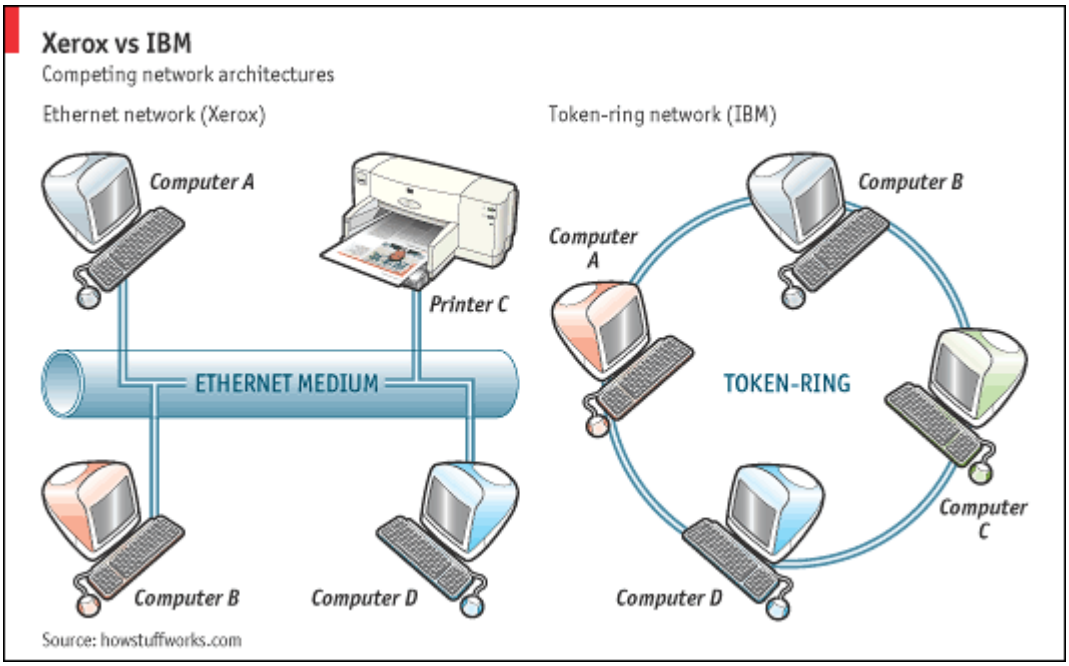
CASE HISTORY

Out of the ether

Sep 4th 2003
From The Economist print edition



An unfinished doctoral thesis and a chance encounter with an engineering intern gave Ethernet's inventor the inspiration for the popular computer network. But a lot of lobbying, brainstorming and clever marketing were needed to turn it into a global standard

IF YOU use a personal computer, you almost certainly use Ethernet. Today, Ethernet stands as the dominant networking technology—the backbone of corporate networks and the emerging wireless WiFi networks. Its success stems from its nimbleness and ability to mutate. At 30 years old, it is exceptionally long-lived for a digital technology, yet there seems to be plenty of room left for advances. Its history would seem straightforward: brilliant inventor makes a breakthrough, cleverly stands conventional organisational principles on their head and, presto, the world is a better place. In fact, Ethernet's development and ultimate success illustrates both the inexorable serendipity of invention and its cruel indifference.

Ethernet itself was just part of a project that made Xerox's Palo Alto Research Centre (PARC) legendary. That project, the Alto computer, would spawn most of the concepts of computing that the world is familiar with today: the graphical user interface, the high-resolution display, the word-processor, a version of the mouse and, of course, connectivity. In the early 1970s, the idea that all computers should contain built-in networking was still new, and the Alto project did not really have anyone who wanted to do work on the connectivity problem. A cocky young graduate student working at PARC called Charles Simonyi volunteered, and planned Simonyi's Infinitely Glorious Network (SIGNet) to replicate the structure of the internet's predecessor, the Pentagon's Arpanet.

Ultimately, SIGNet proved unworkable, and Mr Simonyi was shunted off to work on other aspects of Alto. Later, he would redeem himself with Bravo, which was Alto's word-processor and the basis for Microsoft Word. For his efforts, Mr Simonyi nowadays has a nice house next to Bill Gates's mansion.

At first blush, the man who replaced him did not seem destined for success. Robert Melancton Metcalfe came to PARC having failed his PhD examination, an unheard-of event at the time. Still, PARC needed a network expert to figure out how to connect Alto to its hot new invention, the laser printer. Mr Metcalfe's

need to revise his dissertation proved a boon for what became Ethernet—because, in doing so, he found AlohaNet, a wireless network in Hawaii, which had an interesting approach to sending data. He also stumbled across David Boggs, a young electrical engineer from Stanford University, who had a summer job at PARC. Together, the two would co-invent Ethernet, with Mr Metcalfe generating the ideas and Mr Boggs figuring out how to build the system.

As with so many scientific breakthroughs, Mr Metcalfe's ideas did not so much break new ground as take existing concepts and put them together in a new way. Mr Boggs, also an accomplished radio engineer, remembers reading through Mr Metcalfe's dissertation and notebooks, and recognising parallels in broadcasting. Sending information by breaking it into “packets” of data and reassembling the packets was similar to Arpanet and AlohaNet. Ethernet shunted most of the heavy-duty work elsewhere, which made it much easier to build large networks. It did not try to guarantee reliability, but assumed mistakes would happen—and figured out how to account for them. By naming it Ethernet, the inventors assumed that data might come from all sorts of different media.

Lasting compatibility

Despite all this, little remains of the original 1974 version of Ethernet. Indeed, the only similarity between that three megabits-per-second protocol and the 100 gigabits-per-second version under development today is the packet definition and the notion that underlies the network—that packets are unreliable, forcing the protocol to check their transmission. Yet that is enough. It means that something sent over the original protocol can communicate with the latest version.

Given that other companies would eventually reap the commercial harvest of Alto, one wonders whether Xerox rues allowing it to be developed. Those others got the credit for creating the economic value and the social impact of connected digital technology, while Xerox flirted with bankruptcy and became one of the biggest laughing stocks in the annals of technology transfer.

That is perhaps unfair. No one derides AT&T for its inability to recognise the commercial potential for its seminal invention, the transistor. This newspaper is among many that have counted Ethernet among Xerox's greatest failures. But events show that Xerox got it exactly right. Otherwise, Ethernet would nowadays be little more than a footnote in the history of technology. Instead, Xerox choose to license Ethernet cheaply—for no more than $1,000 a go—and to work through the Institute of Electrical and Electronic Engineers (IEEE) to develop standards for the product.

Xerox made its move under the influence of Mr Metcalfe who, by then, had left Xerox and had started an Ethernet company called 3Com. Indeed, one might argue that Mr Metcalfe's biggest contribution to Ethernet was not inventing it, but getting Xerox to license it cheaply. He knew that if Ethernet were expensive, that would limit its spread and thus its usefulness—for networks work best when they are big and broad.

Working with David Liddle, who ran Xerox's office systems division, Mr Metcalfe convinced Gordon Bell, a brilliant computer scientist from the now defunct Digital Equipment Corporation, to back the Ethernet protocol. He also brought Intel on board to make chips for it. The so-called DIX (Digital-Intel-Xerox) consortium spent years fighting rivals in the IEEE's standards committee meetings.

“The PC's explosive growth during the 1980s dragged Ethernet along with it”

Some participants retain bitter memories of an effort in the early 1980s, by Hewlett-Packard, to rewrite the standard in committee. The move was finally quashed when Mr Liddle got Siemens, a German electrical group, to push the Xerox version of Ethernet through the European standards body, ECMA.

But Mr Metcalfe was unable to convince another large company, IBM, to go with his invention. Instead, IBM chose to back a rival technology, the token-ring network created by a Swedish inventor called Olof Soderblom. In some respects, the token-ring approach was a better way of networking than Ethernet, and IBM's backing made it a potent rival. But IBM would take five years to deliver a working version. So, when IBM released its first personal computer in October 1981, launching the mass commercialisation of the PC, it did not include networking. That created a huge opportunity for 3Com and others to jump in.

Not including networking probably seemed unimportant to IBM. At the time, networks seemed an arcane idea. Most computers were expensive and difficult to operate, and would typically be hard-wired directly to another computer if a connection was needed. Few understood why he funded 3Com at the time,

laughs Richard Kramlich of New Enterprise Associates, a venture-capital firm.

But the PC astounded everyone, especially IBM, which thought it might sell 250,000 personal computers over five years. The PC's explosive growth during the 1980s dragged Ethernet along with it. In the process, 3Com's annual sales soared from $1m to $47m in four years. By 1990, however, Ethernet had arrived at a crossroads. Though it now transmitted data at 10 megabits per second, the rapid evolution of personal computing meant it was becoming a bottleneck.

A group of former 3Com workers, along with Mr Boggs, met to discuss what to form a new company around. While eating pizza one day in the kitchen of a college friend of Mr Metcalfe, they were discussing ideas for Ethernet-based home automation systems. Finally, a young engineer named Larry Birenbaum burst out: “Why can't we just make Ethernet run ten times faster?”

Mr Boggs pooh-poohed the notion. Ethernet was based on the concept of managing collisions between data packets—and ten times the number of collisions would be unmanageable. But another engineer, Ron Crane, jotted down a simple explanation of how one might “switch” Ethernet packets, thus all but eliminating collisions. The company that the group started that day, Grand Junction, would go on to build Fast Ethernet, running at 100 megabits per second on ordinary telephone wire, ending Ethernet's bottleneck. Cisco Systems bought Grand Junction for $348m in 1995.

Despite what looked like serious competition at the time from technologies such as Asynchronous Transfer Mode, Ethernet has remained the most efficient, and least expensive, way to connect vast numbers of devices. As the internet boomed, Ethernet became the technology of choice. Standards for Ethernet have continued to develop, and its speed has gone to multigigabit levels. Indeed, Cisco bought another Ethernet start-up, Granite Systems, to gain access to the firm's gigabit-a-second technology.

As Ethernet has spread, individual brilliance has mattered less in its development. Rather, the collective ingenuity of people such as Andy Bechtolsheim (co-founder of Sun Microsystems and subsequently Granite Systems) and Judy Estrin (a serial entrepreneur in the packet-switching business) was crucial to drive the technology through the standards bodies.

Battles are still being fought. Ethernet is elbowing its way into the turf of Fibre Channel, a technology used for connecting large data-storage networks called SANs. It has the potential even to unseat Synchronous Optical Networks (SONETs) used in long-distance telephony. Ethernet might yet become the technology of choice for wireless phones, though that could take a decade or more. Even so, Ethernet is poised to become a unifying network.

Ethernet everywhere

More imminent are a handful of unconventional applications of the technology. The most familiar is WiFi, the standard built on top of the IEEE's 802.11 wireless protocol. Companies such as Cometa Networks, a well-heeled start-up based in San Francisco, are building WiFi “hotspots” which may in time displace cellular networks.

Another version of Ethernet that is being finalised by an IEEE standards committee will allow every light switch and electrical device in a building to be controlled by an Ethernet connection. This might sound improbable (each device on a network must have its own unique name), but John Schoch, a former PARC researcher, thinks not. Now a venture capitalist, Mr Schoch notes that PARC ran into this very problem during the early days of Ethernet, and gave it a ridiculously large 48-bit addressing scheme—far more than anyone imagined would be needed at the time.

That address space is going to come in handy. That is because at least 98% of the world's computers are actually embedded processors that currently do not connect to any networks (a car, for instance, has around 30 such processors in it). These may all become connected over time, thanks to Ethernet built to the “Personal Area Network” protocol (known as 802.15.4 in the trade) that is currently under development. Efforts are under way at start-ups such as Ember Corporation in Boston, and also at the now-independent PARC itself, to create networks out of tiny wireless sensors. These could change the way troops engage in battle, or allow drivers to know when traffic patterns change. For now, these networks are too rudimentary to do much, but they represent perhaps the most exciting part of Ethernet's future.

It is not clear whether there will be a Bob Metcalfe and David Boggs in these new arenas, thanks in part

to the effectiveness of standards bodies. Certainly, there is the potential for history to look back at Ember's Robert Poor, or perhaps at Kris Pister, the Berkeley engineering professor behind wireless-sensing “smart dust”, and remember them as brilliant inventors who changed the world and became richly rewarded. Equally, they could become mere footnotes in someone else's story—just like Norm Abramson, the inventor of AlohaNet.

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NUTRITION

We are what we eat

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Studies linking how genes and diet interact are helping food companies design products capable of protecting people prone to certain diseases

Anthony Blake

Eat what your genes like

SOME people eat three-egg omelettes topped with slivers of bacon and show no sign of a spike in cholesterol. Others indulge in one chocolate bar after another and stay as thin as a rake. Many, however, are less fortunate. Current research suggests that the culprit may be found in one's genes. Differences in genetic make-up may not only determine the body's ability to metabolise certain nutrients, such as fats and lactose, but also its susceptibility to disease.

The good news is that, within five years or so, researchers should learn how to modify people's diets to fit their genes and thereby prevent or delay the onset of a possible illness. At least, that is the goal of nutritional genomics—a new field that studies how genes and diet interact.

Projects in nutritional genomics are sprouting around the globe. Europe is merging its efforts in the field by launching NuGO early next year, a network that aims to integrate and develop the new branch of research. In America, the National Institutes of Health recently granted the University of California at Davis $6.5m to establish a Centre of Excellence for Nutritional Genomics.

In addition, there are international projects under way, such as HapMap, that focus on studying the pattern of inheritance of single nucleotide polymorphisms or SNPs (pronounced “snips”). These are places where the message encoded in the genome may vary by a single genetic “letter” between individuals. SNPs may determine differences in appearance, such as hair and eye colour, predisposition to illnesses, and how people respond to foods and drugs. Nutrition will be an important part of the new paradigm of “personalised medicine” and preventive health care, says Craig Venter, who spearheaded a private effort to sequence the human genome, and is now collaborating with Duke University Medical Centre to include genomic information in health-care planning.

Only a few diseases are based on mutations in single genes—as is the case with, say, cystic fibrosis or Huntington's chorea. As scientists have learned more about the human genome, they have found that many illnesses, including cancer and type II diabetes, are the result of an interaction between a number of genes and their environment. More than 100 genes have been implicated in the development of coronary artery disease (though carrying only one such gene is still a risk factor). But to express those genes, there needs to be a trigger—such as diet. Researchers estimate that diet may be the defining

factor in a third of all cancers.

A gene is a recipe for making a protein. At the molecular level, various nutrients interact with genes by binding to DNA transcription factors—which regulate gene expression. Thus, the amount and type of food consumed affects the production of proteins directly.

Similar to “pharmacogenomics”, which studies the effects of common genetic variants on drug response, nutritional genomics investigates the effect of diets on different individuals, groups and populations. But unlike drugs—which come as refined compounds, are administered in specific doses and have relatively short-acting effects—foods, like genes, act in concert. “They're like a great big symphony,” explains Wasyl Malyj, who directs the laboratory for high performance computing and informatics at Davis's new centre. Moreover, the effects of foods are slow moving—and often take years before becoming visible.

As a result, no one meal is ever going to be detrimental for most people. The trick will be to find out what constitutes the best balance of nutrients over long periods. For example, a recent paper in the *New England Journal of Medicine* describes the effects of a traditional Mediterranean diet—lots of olive oil, fresh fruits, vegetables, legumes and nuts, moderate amounts of fish and wine, and little meat and dairy products. Those who adhered closely to the diet lived longer and were less likely to die of heart disease or cancer. There was, however, no association between longevity and any individual food component of the diet.

The complexity of human nutrition poses challenges. Clinical trials require a large group of people to be followed over many years. That makes studies costly and hard to conduct. Moreover, people often forget what they have eaten.

But progress is being made thanks to “systems biology”, which uses the tools of genomics, molecular biology and bioinformatics to study the complex interactions of genes, proteins and nutrients at the cellular level. DNA chips can now look at thousands of genes at once, allowing complex gene-expression profiles to be created quickly. In addition, studies of human cell cultures and “knockout mice”, which lack the ability to make specific proteins, provide other means of collecting data. The goal is to find early molecular profiles (“biomarkers”), which may be a useful step on the way to identifying diseases before they pose health problems.

Changes in DNA have occurred in human populations as evolutionary responses to changes in diet. For example, a change in a single gene 10,000 years ago allowed a group of northern Europeans to become lactose-tolerant and continue to consume milk products into adulthood. But such evolutionary responses take time. They also depend on the weeding out of inappropriate genes by the early deaths of carriers. In other words, they only happen because some genes cause diseases when exposed to the new diet.

For example, roughly half the adult population of the Pima tribe in Arizona have developed diabetes. This seems to be in response to a modern American diet, and its associated way of life. Another group of Pima, which lives in Mexico and still follows a more traditional diet and a less sedentary lifestyle, shows no significant increase in the disease. Singapore, with residents of Chinese, Indian and Malay descent who share similar prosperity and eating habits, serves as another interesting example. A portion of this ethnically-mixed population is now affected by the formerly uncommon coronary heart disease, but in unequal proportions—a result of a difference in genetic predisposition.

What is acceptable for one individual may actually harm another, says Ronald Krauss, director of atherosclerosis research at Children's Hospital Oakland, in California. Dr Krauss, who also chaired the American Heart Association's dietary guidelines committee in 2000, says its current recommendations benefit most people. However, it may be useful for some to adjust their diet based upon their genetic profile.

Dr Krauss, who has been researching the effects of various types of low-density lipoprotein (LDL), or “bad cholesterol”, suggests that some healthy people may actually increase their risk of heart disease by embarking on an extremely low fat/high carbohydrate diet—something that is sometimes recommended as a way of lowering cholesterol. He has found that people with large LDL particles in their blood, a state of affairs that is relatively safe, can develop an abundance of small LDL particles, which is more dangerous, after a few weeks on such a diet.

“Some healthy people may increase their risk of heart disease with an extremely low fat/high carbohydrate diet”

One of the first projects of Davis's new centre will be to compare tissue samples

from white and black American men. For reasons not yet understood, black American men have a 60% higher incidence of prostate cancer than their white compatriots. Analysing the degree of genetic variations between the two groups may provide clues to the importance of environmental factors—such as diet and access to good health care—which could play a part in the disparity. Eventually, hopes Raymond Rodriguez, the director of the Davis centre, nutritional genomics will usher in a new era of consumer genetics that will translate into practical lifestyle changes and dietary choices.

Food as medicine

Businesses certainly hope so. The current epidemic of metabolic diseases, such as obesity, diabetes and heart disease—in which diet is an important risk factor as well as a preventive agent—provides an opportunity for companies to develop foods that help populations at risk. Add to that the clinical proof of diet/gene interactions, and the traditional distinction between medicine and food becomes increasingly blurred. As a result, food companies may begin to think more like drug firms.

AP

Farmaceutical spread

While they have only a fraction of the R&D budgets that pharmaceutical companies make available, some food companies are already marketing “functional foods” that address the needs of specific populations and have gone through independent clinical trials. One example is Unilever's Flora pro.activ—a bread spread that reduces cholesterol by 10-15%. Unilever, an Anglo-Dutch giant supplying foods and other consumer products globally, has formed a partnership with Perlegen, a genetics company based in Mountain View, California, which has catalogued no fewer than 1.5m common genetic variations in humans to date. The aim is to develop new foods that match the needs of specific populations. Nestlé, the largest food company in the world, has similar agreements in place.

As more interactions between diet and genes become known, simple genetic tests via “cheek sweeps” (DNA testing based on swabbing the inside of the cheek) may determine what people need to eat. A handful of companies, such as Sciona in Britain, has already begun to sell products (available online and through some health-care providers) that test for genes that influence the metabolism of alcohol, folate and other nutrients. Based on the results, Sciona makes suggestions for diet modifications. But experts agree that, thus far, such tests have little meaning. “Telling somebody what to eat based on a few genes is not appropriate,” says Jim Kaput, founder of NutraGenomics, a start-up that plans to offer genetic tests once the knowledge is more advanced.

However, before such tests become commonplace, a number of ethical, medical and legal issues will need to be addressed. One fear is that insurance companies might gain access to the information and charge higher premiums, or even exclude people from their plans, on the basis of their genes. And, because of the complexity of diet/gene interactions, it will be essential to train physicians to interpret the test results. Despite these hurdles, most researchers agree, the potential benefits outweigh the possible harm. As Dr Ordovas, professor nutrition and genetics at Tufts University in Massachusetts, says, predicting illnesses 40 or 50 years before they may arise is not only a convenient way to minimise the need for expensive drugs—but also a powerful tool to improve the quality of a person's life.

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INNOVATION

Reinventing Europe

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AP

With so much of its industrial base ageing and resistant to change, how can Europe close the research and development gap with America?

DURING the run up to the war with Iraq, the “Old Europe” jibe from an exasperated Donald Rumsfeld, America's secretary of defence, hardly helped his cause. But it did reflect a deeper truth about the way Europe is seen in the United States as outdated, under-invested and burdened by a lingering enchantment with notions of social justice.

Europe's industrial base certainly needs updating. It has more than its fair share of capital-intensive industries that have reached the end of their innovation cycles, and are unsure where to go next. European industry is also investing too little in research and development (R&D), at least if it hopes to keep up in the knowledge-economy stakes. But increasing the amount that Europe spends on R&D is difficult when so much of its industrial base is mature.

Local politicians know this better than anyone. But being European, they have come up with a plan and set targets, rather than ease regulatory rigidities that make it difficult for such reforms to occur. Late in 2002, in an initiative dubbed “More Research for Europe”, European heads of government declared that the region should boost its industrial R&D to ensure future competitiveness and social well-being. The bureaucrats want to see Europe's R&D investment rise from its current 1.9% of GDP to 3% by 2010. And industry, they say, should provide most of that extra investment.

Will it? Andrew Dearing, secretary general of the European Industrial Research Management Association, says Europe is under-investing in R&D to the tune of €100 billion ($120 billion) per year compared with the United States. Philippe Larédo, director of research at the Centre de Sociologie de l'Innovation in Paris, reckons this is the legacy of a traditional difference in public support for R&D in America and Europe. He estimates that, between 1990 and 1996, American taxpayers forked out $140 billion on R&D compared with $70 billion coughed up in Europe. Half of the $140 billion of the public money spent on R&D in America was for defence research. The implication is that the Pentagon underwrites a goodly chunk of American innovation.

Les échos

Such excuses for under-performance have been trotted out by hand-wringing Europeans ever since 1967, when Jean Jacques Servan-Schreiber first warned of the industrial challenge posed by American defence research in his book “Le Défi Américain” (“The American Challenge”).

Today, such explanations ring hollower still. In fact, ever since the end of the cold war, far from American industry getting a hidden subsidy from the Pentagon, civilian technology has underwritten much of America's defence effort. The reasons for America's willingness to invest in R&D and Europe's reluctance to do so go to the very heart of what distinguishes one culture from the other. Europeans need to look more closely at the cultural traits that are inhibited at home but given freer rein in America.

Start at the company level rather than that of the country or continent. Being the individual cells of an economy, firms are easier to put under the microscope. The first thing to notice is that if European industry is to increase its investment in R&D significantly, then individual firms will need to see, and retain, an improvement in returns. That means rewarding them for shifting up a gear from making incremental improvements to their existing products, to coming up with radical innovations that rewrite the market rules. The question is whether the best practices—in terms of management tools, organisational structures and cultural changes—devised by successful firms can be cloned and applied to mature, capital-intensive industries.

The good news for Europe is that there are a number of local companies that are as innovative as any. For instance AgustaWestland, a helicopter maker, is moving into what it dubs its “third era” of sustainable growth, following periods when it was classed as a “pioneer” and later as a “market leader”. The company has launched two big research-based projects to achieve this.

The first is to work with partners to develop a “friendly helicopter” that uses 20% less fuel than today's aircraft, makes less noise outside, suffers less cabin noise and vibration, emits fewer pollutants and can be used in more weather conditions. The second is the introduction of the world's first civilian tilt-rotor aircraft—a cross between a light aircraft and a helicopter. But to accomplish this, AgustaWestland has had to push its research horizon out to 2020.

It is no surprise to find an aerospace company at the cutting edge of technological innovation. But even a company producing building materials can use breakthrough research to reinvigorate its business. The Paris-based Lafarge group, the world leader in construction materials, spends a paltry 1% of sales on corporate research and development. But with sales of €14.6 billion in 2002, that still means Lafarge has close on €150m a year to spend on learning “how to crush stones and put them back together,” says Denis Maitre, senior vice-president of the company's central R&D labs.

“Companies need to separate their perception of the value of an idea from the way it is presented”

Lafarge's most recent innovation is Ductal, a fibre-reinforced concrete with six to eight times the compressive strength of ordinary concrete, ten to 100 times the durability, and much greater ductility. The concrete is so strong that a 25-metre bridge beam that is one metre thick can be deflected 30cm without breaking. Ductal has already been used to build a 120-metre footbridge with a deck that is only 3cm thick.

Having developed Ductal with a multi-disciplinary team that grew to include ten other labs, Lafarge's next challenge is to get it employed by a fragmented and conservative construction industry. But one of the most important lessons for Dr Maitre has been the realisation that even the construction industry need not regard its technology as being set in concrete, as it were.

What these examples illustrate is that success does not come quickly. Ductal took more than ten years to develop and could face another decade or more before being adopted by industry in some commercially significant way. With the need to devise production methods, rewrite design and safety codes, encourage multiple sources of supply, and develop repair and maintenance procedures, it is no surprise that new materials (such as engineering plastics, super-strength ceramics or carbon fibre) generally take 30 years to go from invention to commercial use. In aerospace, the gestation period for innovations can be even longer. The world's first tilt-rotor aircraft (Bell XV3) flew in 1953, yet the first flight of a commercial tilt-rotor was in 2003—some 50 years later.

Learn to listen

When R&D takes decades to bear fruit, researchers need different methods for managing such long-term

projects, especially when their companies are changing around them. “You manage breakthrough and incremental research in different ways,” says Dr Larédo. “That makes it difficult to do ‘breakthrough innovation' within large organisations.”

One way to help breakthrough research thrive in large organisations is to ensure they listen to themselves carefully. There is more to that than placing suggestion boxes around the workplace. Businesses need to tolerate—even encourage—failure. Otherwise, employees will be reluctant to propose seemingly outlandish but potentially mould-breaking ideas. Above all, companies need to separate their perception of the value of an idea from the way it is presented, or the track record of the person proposing it. A good idea is a good idea, wherever it comes from. Also, if staff can work in multi-disciplinary teams, with a wide circle of peers, the quality of ideas tends to improve.

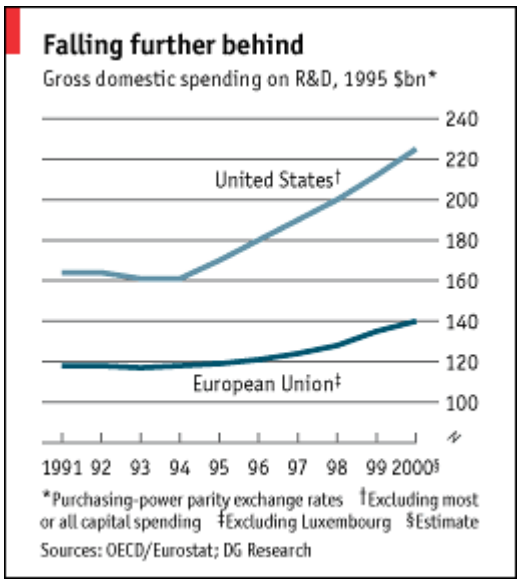
Another key source of ideas for breakthrough research is the customer. The notion that you can improve the relevance of your research by asking customers what they want remains a revelation to some European companies. Again, this is a reflection of the difference in attitudes to research in America and Europe. In the United States, innovation is all about solving a problem, while in Europe it is more about doing science.

That said, a handful of European groups are using customers to drive their research agendas. Stefano Marzano, head of Philips Design, which is part of the Dutch consumer electronics group, says companies need to get away from the idea that people simply want products, and look instead at what they value. He believes consumers want to be omnipresent, omniscient and omnipotent, with the maximum comfort and freedom and with the minimum effort. Philips Design uses the specific values that its consumer research has uncovered to promote its product development.

Look outside

Lafarge, AgustaWestland and Philips have all managed to turn breakthrough research into paying products. But some large European companies seem unable to change their emphasis away from incremental research, despite recognising the need to alter their thinking. For these, the best solution could be corporate venturing or academic partnering. Both offer an effective way to engage in breakthrough research without having to rip up the corporate structure and start all over again.

The promise of corporate venturing is clear: shorter development times and reduced development costs. The approach may also widen a company's research options and provide opportunities for sharing risk. Corporate venturing can help companies avoid internal projects cannibalising one another, and take advantage of possible clusters of new technologies.



One key issue with corporate venturing is the cultural differences that emerge between the investing parent and the new venture. These need to be respected. There is little point in creating a separate organisation if the parent then insists on imposing its management methods and values on a fledgling that needs to operate lean and nimbly.

It is also important that the parent does not shield the new venture too much. It is being created specifically to take risks and try new approaches. But corporate venturing does not work for every organisation trying to reinvigorate its research. For instance, there is no point in creating a corporate venture if there is a conflict of interest, or if the parent firm does not have the resources to sustain it.

For its part, academic partnering has always been fraught with difficulties. While attitudes in European universities about academics getting their hands dirty have softened, arguments nowadays rage on how professors should spend their time, who owns the intellectual property they create, and how the rewards from its commercialisation should be shared.

One possible model for collaboration between industry and academia is emerging in the Netherlands. The government has formulated a €200m plan, known as the Netherlands Genomics Initiative (NGI), to undertake genomics research and extract value from it. Industry and the universities have been asked to

propose research projects that can contribute to the global genomics effort. The request has led to tenders for ten projects worth €50m a year over a five-year period. After being assessed by an external panel, the successful projects will be funded equally by the participating universities, the companies involved and the new government agency.

That way, says Peter Folstar of NGI, not only is each research consortium of a globally relevant size, but the research is also kept tightly focused on its commercial goals. Dr Folstar sees this as a shift from the typical European way of supporting research to much more of an American approach to solving problems. “When you're investing in university research, you need both to sponsor it and manage it,” he says. “You have to do both to succeed.”

“Some universities are more interested in making it easy to get their own IP into the marketplace”

The NGI approach is similar to one taken in the formation of the Netherlands' Technological TOP Institutes, which undertake pre-competitive research that is meant to lead to commercial innovations. The institutes receive 50% of their funding from the government, 25% from universities and 25% from industry. They were created by tapping the universities for ideas and then defining a series of technology areas for each of the institutes to focus on. The industrial partners then chose which areas to back.

While free-standing institutes can give industry a way to access academic research, some universities are more interested in making it easy to get their own intellectual property (IP) into the marketplace. One such group is the chemistry department at the University of Oxford, which has struck an innovative deal with a venture-capital company. The department produces 80 PhDs each year and £10m ($16m) in research income, and is creating a growing stream of spin-outs. “The key is that the university owns the IP,” said Graham Richards, chairman of the department. This has been a controversial issue among academics, many of whom want to hold on to as much of the “value” of an invention as possible, regardless of how the work was funded.

Lighter, stronger, stiffer

Dr Richards is having none of it. “It's really stupid to give the IP to academics because they then have to pay the patent fees,” he says. When the IP remains with the university, it pays those fees, which amount to £1m per year at Oxford. Typically, the Oxford spin-outs now split their equity four ways: 30% to the investors, 20% to the management, 25% to the university and 25% to the academics who did the original research. The department that fostered the research sees a direct payback, too, by receiving 15% of the university's profit when it sells its stake in a venture.

The Oxford spin-out process is now being accelerated by a deal Dr Richards has negotiated with IP2IPO, a British venture-capital firm that has raised more than €50m over the past three years to commercialise university IP. This way, says Chris Wright, one of IP2IPO's directors, the venture-capital firm is making a £20m investment in Oxford University's chemistry department. In return, IP2IPO gets half of whatever the university earns from the chemistry department, either in licensing revenues or spin-out equity, over the next 15 years.

In Britain, IP2IPO has done similar deals with Southampton University and with King's College London. At Southampton, the venture-capital firm has cut a deal with the entire university. It is investing £5m in Southampton start-ups in return for a 20% stake in the university's technology-transfer company for the next 25 years.

Mr Wright believes his firm's approach could help unlock much of the value tied up in intellectual property within British universities. And in the process, it should help ensure that the universities miss fewer opportunities in the future. In the past, they have let countless lucrative innovations slip through their fingers, including monoclonal antibodies and erbium-doped optical fibres, both of which went on to become multi-billion dollar businesses. Meanwhile, American universities received $1.1 billion in licence income during 2000.

Join the crowd

If corporate venturing or academic collaboration alone cannot reinvigorate Europe's research base, then perhaps geography might. Dr Larédo believes that the emergence of “technopoles”—physical locations with a rich mix of academic institutions, government laboratories, business activity and financial services—is beginning to create a new research environment.

Grenoble in France has become a technopole for microelectronics and nanotechnology. The region is already home to numerous start-ups, a business incubator and a seed-capital company. All of these benefit from the strong local presence of STMicroelectronics, a European chipmaker, which leads a consortium on next generation semiconductor manufacturing that draws in other important microelectronics companies including Philips, Motorola of America and TSMC of Taiwan. Ken Taylor, an adviser on collaborative research at the University of Surrey, agrees that such rich interminglings of knowledge and implementation skills may be an important way forward for breakthrough research.

European industry faces a massive challenge if it is to meet the goal of spending 3% of GDP on research and development. Making a success of breakthrough research will mean more than spending money on laboratories and researchers. Fortunately, while many of Europe's ageing industrial firms may be slow to innovate, they are world class when it comes to making and marketing products. That should hold them in good stead if they can make the shift to developing innovations from breakthrough research. Remember, Nokia was a gumboot-maker before it moved into mobile phones.

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LAST WORD

Embryonic man

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Irving Weissman believes embryonic stem cells will usher in a second biotech revolution, offering a whole new armoury of medicines—just as equally controversial recombinant DNA did when it sparked the first biotech revolution a couple of decades ago

Stem-cell pioneer

IRVING WEISSMAN discovered his passion for science when he read Paul de Kruif's “Microbe Hunters”, which detailed the adventures of Louis Pasteur, Robert Koch and other early bacteriologists. Only ten years old at the time, he did not know then that he would himself become one of biology's pioneers. Today, Dr Weissman is widely known for being the first person to track down adult stem cells of any type.

In 1988, the Stanford professor of pathology and cancer biology reported having isolated blood-forming stem cells from mice. Four years later, he accomplished the same feat for humans. Recently, he has been part of a group that discovered human stem cells capable of generating various types of brain cells. His research has helped lay the foundations for a revolution in medicine.

To speed up that process, Dr Weissman has founded no less than three companies. Two are based in Palo Alto, California, minutes from his office. StemCells, started in 1995, hopes to begin human trials for its neural stem cells late next year. Possible beneficiaries include people suffering from Parkinson's disease, Alzheimer's disease and other degenerative diseases of the brain, and also victims of strokes. Brand new, but more clinically advanced, Cellerant Therapeutics focuses on developing purification techniques for human blood-forming stem cells.

Thus far, Dr Weissman, who is now 63 years old, has worked only with adult stem cells. But he is the first to admit that, unlike the embryonic stem cells, their ability to divide and differentiate into other cells may be confined to specific tissue types. Though, as chairman of a National Academies' panel, he testified before the American senate against human reproductive cloning, he spoke in favour of nuclear transplantation (sometimes called “therapeutic cloning”), a technique that allows the creation of new embryonic stem-cell lines. “We can prohibit the research and thereby forfeit America's position at the forefront of science, or we can push ahead and potentially cure many fatal diseases.” Dr Weissman intends to do the latter—a view he emphasises publicly at every opportunity.

Irving Weissman was born into a family of pioneers. His grandfather arrived as an immigrant at Ellis Island around 1910, and made his way across America until he reached Montana, where he settled with his family. While Montana may not seem like the ideal place to get the education an aspiring scientist needs, for Irving Weissman it turned out to be precisely right. As a schoolboy, he looked for a chance to get some hands-on research experience. Lucky for him, the local pathologist at the Montana Deaconess Hospital, Ernst Eichwald, was also a specialist in transplantation biology. For the next few summers, young Weissman took care of the laboratory mice and was allowed to participate in the research. By the time he was 18, he had been co-author of two papers—a feat that helped him get into Stanford medical school.

A few months after his arrival in California, he found his way into Henry Kaplan's laboratory. The late Dr Kaplan, who pioneered the use of targeted high dose radiotherapy for Hodgkin's lymphoma and helped turn the then-fatal disease into one that is reasonably easy to cure, became Irving Weissman's mentor. He gave him lab space and let him investigate the properties of lymphocytes—a subset of disease-fighting white blood cells that play a key part in the immune system.

In the early 1960s, he met Sir James Gowans, who was developing sophisticated methods of understanding how lymphocytes function. By purifying the cells and putting them into a host, Sir James demonstrated how they circulate throughout the body; recognise and remember foreign antigens; and create an immune response. Studying with Sir James at Oxford for nine months convinced him of the importance of performing diligent experiments *in vivo*.

Finding the stem cell was like looking for a needle in a haystack, Dr Weissman recalls. When monoclonal antibodies were invented by Georges Kohler and César Milstein in the mid-1970s, he used them as a tool to bind to and identify various types of blood cell. Initially, the goals were to look for common ancestors of different lymphocytes; to understand their development at various stages; and to study where they go haywire and cause diseases such as leukaemias and lymphomas. Slowly working its way backwards, Dr Weissman's team eventually found precursors to t-cells, b-cells and the like.

They continued to isolate one cell type after another. By 1986, it became clear that the team was on to something big. In 1987, Dr Weissman and his colleagues performed a final test by injecting the last batch of cells, believed to be stem cells, into mice whose immune systems had been completely destroyed by radiation. The results were amazing. Before, bone-marrow transplants generally required at least 200,000 cells. Now, with only a tiny fraction of the original number—100 cells or so—the mice's marrow could be completely replenished.

“Who do we care about more—a speck of cells or a grown human being suffering from a life-threatening or debilitating illness?”

While Dr Weissman has yet to achieve the ultimate goal of haematology—cultivating human blood-forming stem cells *in vitro*, he is on his way to commercialising purified versions for patients with cancer, auto-immune diseases and those needing transplants. Eventually, it should be possible, he believes, to replace a body's diseased bone marrow with tissue from a healthy donor without adverse immune reactions—making it possible to take organs and/or stem cells from that same donor and transplant them successfully. Because both will share the same immune system, tissue rejection should not be an issue.

Purified cells also offer hope for patients with late-stage cancers, who sometimes receive intense radiation and chemotherapy regimens as a last resort. A dose high enough to kill all tumour cells generally also kills all blood-forming stem cells, and thus the patient. To avoid this, physicians remove bone marrow prior to treatment, and transplant it back afterward. Unfortunately, in many cases the marrow itself contains cancer cells and can make the patient sick again. According to Dr Weissman, the remedy is to transfer highly purified stem cells.

Dr Weissman tested the concept at SyStemix, a company he had founded in 1988. The company began three small clinical trials in 1996—the most promising being for women with breast cancer in a late stage of development. Five years after receiving the purified cells, more than one-third of the participants are still alive—without a trace of the disease. The best survival rate other therapies have achieved is about 10%. Robert Negrin, head of Stanford's bone-marrow transplant programme, who led the trial, cautions that a large-scale randomised trial still needs to be performed in order to confirm the statistical significance of the results. But, he admits, “the patients are doing surprisingly well.”

The results are even more remarkable in light of the fact that, for metastatic breast cancer patients, bone-marrow transplants have been discredited. According to an influential paper published in April 2000 in the *New England Journal of Medicine*, they provide no survival benefit whatsoever. After the article appeared, the use of this treatment more or less stopped. Dr Weissman suggests that the blood cells in question may have contained stem cells mixed with other cells, including cancerous ones, and not purified enough to benefit the patients.

When Sandoz bought SyStemix in 1996, he hoped the pharmaceutical giant would speed up the commercialisation. But a couple of years after Sandoz's own merger with Ciba in 1996, the company (now called Novartis) changed its priorities and put SyStemix's cell sorting and purifying technologies on the back burner. Three years after SyStemix shut up shop, Dr Weissman convinced Novartis to license key technologies to his new company, Cellerant. He reckons it will take another three years to complete the late-stage trials necessary to bring purified cells to market.

From adult to embryo

Until now, Dr Weissman's work has been all about adult stem cells—though that may soon change. At

Stanford's new Cancer and Stem-Cell Biology Institute, he plans to encourage the creation of new embryonic stem-cell lines. This is the controversial procedure that involves transferring the nucleus of an adult cell into an egg to create a “blastocyst”—essentially a very early stage embryo made up of a ball of 200 cells or so.

For the purposes of cloning a human, a blastocyst would have to be implanted into a womb and carried to term—a medically dangerous procedure that fails 99.2% of the time in animals and should be outlawed, Dr Weissman insists. What should be allowed, he says, is the creation of a blastocyst to harvest embryonic stem cells—those rare “pluripotent” cells that appear soon after conception. Creating new lines is essential, Dr Weissman argues, because the few available for government-funded research in America do not have the genetic diversity needed for the study of many diseases.

Peering at biotech's second revolution

According to the human cloning prohibition bill, which was passed by America's House of Representatives in February 2003 and now before the Senate, anyone practising nuclear transfer for the purpose of cloning a human being or harvesting human stem cells will be punished with up to ten years in prison and fined a minimum of $1m. While Dr Weissman acknowledges the ethical and religious issues involved, he argues against such drastic measures. Ultimately, he says, the question is: Who do we care about more—a speck of cells or a grown human being suffering from a life-threatening or debilitating illness?

For his outspoken work, he gets the admiration of many other pioneers in the scientific community—including a Nobel laureate, Paul Berg, who praises Dr Weissman for leading the discussion. In fact, Dr Weissman likens the current debate on embryonic stem cells to the one Dr Berg helped spark on recombinant DNA more than 20 years ago. Back then, scientists themselves put a moratorium on the research until guidelines were established that oversee experiments without prohibiting them. As a result, the world now has many new medicines to help cure hundreds of thousands of people, Dr Weissman points out. Similarly, he believes that stem cells “will open the doors like recombinant DNA did for the biotechnology revolution.”

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American business and the law

Enemy of the states

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Companies are increasingly worried by the growing power, and desire, of America's state attorneys-general to regulate and punish them

WHEN Ford Motor Company paid $52m last December to resolve claims that it had misled consumers about the safety of its sports-utility vehicles, it settled not with America's federal authorities, but with 50 state attorneys-general. When Household International paid $484m last October to settle allegations of predatory mortgage lending, it also settled with the states. Over a year after WorldCom collapsed amid massive accounting fraud, Bernie Ebbers, the firm's former chief executive, was this week having his fingerprints taken—not by federal prosecutors, but by officers instructed by Drew Edmondson, attorney-general of Oklahoma.

Not long ago the offices of most state attorneys-general were chasing nothing more exciting than petty fraud. Today, truly ambitious holders of office influence the way America does business, tackling issues ranging from antitrust and product liability to environmental regulation and customer privacy. This year alone, the 500 lawyers under the command of Eliot Spitzer, New York's attorney-general, have busied themselves with hedge-fund regulation (this week winning a $40m settlement from Canary Capital), conflicts of interest on Wall Street, predatory lending by consumer-finance firms, drug pricing and more. Connecticut's attorney-general, Richard Blumenthal, has led the states' antitrust investigations into Oracle's attempted hostile takeover of PeopleSoft, a business-software rival, pre-empting a parallel federal antitrust investigation. After the Environmental Protection Agency announced changes last month that would ease the burden on owners of power plants and factories to upgrade pollution controls when expanding or renovating facilities, attorneys-general from Massachusetts, Pennsylvania, New Hampshire, New Jersey and New York said they would sue to block the new rules.

Presumed public-spirited

Unlike consumer-protection groups and class-action lawyers, which pursue similar legal actions, state attorneys-general are usually presumed by the courts to be acting in the public interest, so they always get their cases heard. Still, big firms have the resources to tie up for years a state that acts on its own, says Tom Miller, Iowa's attorney-general. The crucial recent change, says Mr Miller, is the way the states have begun to work with each other.

Together, America's 56 state attorneys-general (along with the 50 states come representatives from Guam, American Samoa and the like) field nearly 12,000 lawyers, according to their national association, NAAG. Together, they can bring simultaneous suits in over 50 jurisdictions. Almost all of the states' most celebrated settlements have been the product of such “multistate actions”—including, above all, their landmark $246 billion settlement in 1998 with America's tobacco industry. NAAG does much of the co-ordinating, levying membership dues that fund a string of committees overseeing antitrust, bankruptcy, consumer protection, environment, health care and so on. Multistate actions, says Mr Miller, have helped to “move the balance of power” between big firms and state governments. Phil Carlton, a lawyer who runs a firm that helps companies find local lawyers in state capitals, calls the combined power of the states an “awesome threat”. “They are erecting a new branch of government,” he says.

Supporters of the states say they are filling a void left by negligent federal regulators and politicians, who are in the pockets of big business. Mr Spitzer says that, as a young lawyer, he believed firmly in the federal government's prerogative to take the lead in regulating business. But the Securities and Exchange Commission failed to tackle conflicts of interest on Wall Street, forcing Mr Spitzer to intervene against his principles and make the banks settle and reform themselves. The National Highway Transport Safety Administration failed to take Ford to task for its contribution to rollovers caused by burst Firestone tyres, so the states did its work. Filing his charges against WorldCom, Mr Ebbers and five other former executives, Mr Edmondson said he acted because, “I don't think this firm has been punished.”

Thus, state activism is said to ebb and flow with the philosophy of the federal government. In the 1980s, the states parried Ronald Reagan's deregulatory policies with their own brand of consumer activism. George Bush's friendliness to big business is getting a similar reception now. Such checks and balances, claims Mr Miller, a Democrat, are part of the “genius” of the American federalist system.

Critics point to the pernicious lessons of the 1998 tobacco settlement. This taught the states the value of pooling their resources—not just with each other, but with the class-action lawyers whose attempts to wring damages from the tobacco industry had failed until then. As politicians, the attorneys-general won plaudits from voters for championing public health, along with big campaign donations from the trial lawyers, whose fees they helped to secure. As local officials, they found a rich new source of state revenue, thus enhancing their position in the machinery of state government. Ever since, personal ambition (a state's attorney-general now often goes on to become its governor), plus the states' deepening financial crisis, have pulled energetic attorneys-general ever further away from their duty to pursue the wider public interest. From his $1.4 billion “global settlement” with Wall Street's ten-biggest securities firms in April, Mr Spitzer wrung nearly $500m for state coffers, and invaluable publicity for his blossoming political career—without even detailing quite how the banks were supposed to have broken the law.

In the end, the states will be judged on the quality of their policymaking. That depends, in part, on whether it makes sense to regulate business federally, or in the states. Decentralisation lets local communities match local rules to local values. It also lets competing governments experiment with policy. It was the deregulation of airlines in Texas and California in the 1970s, for instance, that showed federal government the way. Yet regulations in one state can have unpleasant effects on business in another. Poorly-funded states might lack expertise to regulate properly, and a patchwork of state-by-state regulations might heap costs on doing business nationally, reducing the ability of companies to reap economies of scale. Because potential economies of scale are growing in many markets, and because rapid technological change might strain the expertise of local regulators, argues Robert Hahn of the AEI-Brookings Joint Centre for Regulatory Studies in a recent paper, the burden ought increasingly to fall on proponents of decentralisation to justify their policies.

That is the opposite of conditions in America today: the states have power and popularity, while big government in Washington, DC gets all the scrutiny. One reason is that the Republicans, the traditional pro-business party but also the one in favour of greater state rights, are currently in power. So long as this continues, the state attorneys-general should flourish. Business had better watch out.

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Broadcasting

Going, not yet gone

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Vivendi has chosen prestige over cash in its deal with General Electric

Get article background

WHEN Jean-Marie Messier, Vivendi Universal's ousted former chief executive, was still in his acquisitive pomp, one of his many dreams was to buy NBC, a broadcast television network and media company owned by General Electric (GE). Instead, now that Mr Messier is gone, the distressed French firm has spent this summer trying to persuade GE to relieve it of its own American entertainment assets. This week, after a four-month auction, Vivendi announced that it is entering into exclusive talks with NBC. The firms say they will combine their respective media assets in a new venture that could be worth over $40 billion. Under the proposed transaction, GE would control the company. Vivendi would get an 18% stake.

Rival bidders for the French firm's Los Angeles-based film studio, television business and theme parks reckon that Vivendi intended all along to choose GE if possible. Jean-René Fourtou, now its boss, no doubt hopes that a deal with such a blue-chip firm will help to mend the damage done to Vivendi's reputation by Mr Messier, whose debt-financed buying spree took the firm close to bankruptcy last year.

AFP

Fourtou has his sights on GE

Mr Fourtou has also managed to get the $14 billion-15 billion valuation he wanted for Vivendi Universal Entertainment. On paper, that is: the value is notional, arrived at largely by guesswork. Only a small part will go to Vivendi as cash. Indeed, by choosing GE, Vivendi has left a lot of cash on the table, making it less able than it might have been to cut its €13 billion ($14 billion) or so of net debt (compared with €12 billion at the end of 2002). Edgar Bronfman, the runner-up in the auction, who once owned the assets that Vivendi is selling, offered $5.5 billion in cash, plus a $2.5 billion reduction in Vivendi's debts. GE is offering shareholders in the entertainment assets $3.8 billion of cash, of which Vivendi will get $3.2 billion, plus a $1.6 billion debt reduction. Vivendi will have future opportunities to cash in its stake, but not until 2006.

Vivendi had given itself some room to take less cash, say credit analysts, thanks to earlier asset disposals and high-yield bond issuance. But the process of selling assets for cash has ground to a halt, says a credit analyst at a leading credit-rating agency. There will be no cash in from GE, he points out, until the deal is signed and gets regulatory approval, which could take many months. The money Vivendi expected from the sale of its stake in a Polish mobile phone company, PTC, he says, may be delayed because Elektrim, another troubled conglomerate which jointly owns the stake, said it would block a €1

billion bid from Deutsche Telekom for being too low. Vivendi has also said that it will increase its stake in Maroc Telecom, which could cost the firm over €500m.

Mr Fourtou's task in the next month is to get GE's signature without making big concessions. GE is a fierce negotiator, and may well try to cut the price. Having sent other suitors packing, Vivendi is in a weaker position than it was. People close to Vivendi argue that GE's management would lose face if the deal fell through.

Putting NBC together with Vivendi's entertainment assets makes some sense. The Universal film and television businesses will bring media content to NBC's distribution channels—NBC would be able to mine Universal's extensive film library for new cable channels, for instance. Having an in-house TV studio will give the network leverage when negotiating deals with other, vertically integrated, media conglomerates. GE expects to gain annual synergies worth $400m-500m, according to Citigroup. This further advance into media would reduce GE's over-reliance on its finance business.

Vivendi's stated goal is to persuade the credit-rating agencies to raise its debt back up to investment grade. The rating agencies say they will only do that once Vivendi has a credible business strategy in place. A few months ago it seemed that Vivendi would become a pure, if unexciting, telecoms company, after selling its entertainment assets and Universal Music, its huge music business. Now it is about to have a large stake in an American media company, but no control over it, and the sale of music is off for now. Eventually, Vivendi may be broken up, or sold to Vodafone, which covets SFR, its French mobile-phone subsidiary. For now, it remains an indebted hodge-podge.

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Fiat

The day of the Panda

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Will new models such as the Panda save Italy's ailing car giant?

Get article background

IF FIAT does not like the way its fight to survive in the car-making business is going, the company could, in theory, throw in the towel next January, when a “put option” to sell its entire car operation to General Motors (GM), which already owns a minority stake, can first be exercised. But that will not happen. Although the option is still in place, GM would certainly go to court to block it. In a filing last month to America's Securities and Exchange Commission, GM noted that the option “could be unenforceable by reason of actions Fiat has taken”. If Fiat successfully forced the issue, GM's filing makes clear, GM might decline to provide further funds to keep Fiat Auto alive.

EPA

No giant, this Panda

Fiat bosses know all this. Their basic problem with Fiat's car division is that sales have fallen so far that its factories are only two-thirds full. Closing factories and laying off workers, other than temporarily, is a harder political feat in Italy even than in a Detroit dominated by unions. So Fiat is pinning its hopes on rediscovering revenue growth. Once its factories reached 80% of capacity, there would be valuable additional efficiency gains. Accelerating out of trouble may seem risky, yet this is how Volkswagen recovered in the mid-1990s, when its performance was almost as poor as Fiat's is now.

Among the many obstacles to executing this strategy is the fact that Europe's car market is shrinking. Makers of mass-market cars are using discounts to support sales. In August, after a long decline, Fiat's market share in Italy climbed by two percentage points, to over 30%. Yet its overall sales were down by 8.5% on a year earlier, because of the shrinking market. Car sales across Europe are expected to fall by around 3% this year.

Having raised finance by selling assets and from a share issue completed in August, Fiat is using part of the money to overhaul its product line. More than 20 new models are planned in the next three years for the Fiat, Alfa Romeo and Lancia brands. The first, shown off this week in Portugal, was to be called the Gingo, until Renault objected that this was too close to the name of its Twingo model. So it will now be known as the New Panda, after the more basic mini car it replaces.

The latest Panda is stylish and nippy—with fancy trim and such luxuries (for Europe) as air conditioning. But it is not cheap, costing some €9,000 ($9,700), compared with €6,000 for the primitive old Panda.

Gianni Coda, who runs the Fiat and Lancia brands, dismisses suggestions that Fiat's revival depends on how well this single new model sells. “It's the strategy,” he says, “that can save us.” Over the next two years he aims to rejuvenate the firm's entire model range.

This strategy is hardly unique, however. Every other car maker in Europe has realised that frequent product innovation is the way to boost sales, a lesson learned from PSA Peugeot Citroën, which went from lame duck to Europe's most profitable volume producer with that approach. Next week's Frankfurt motor show will feature a wave of new models, including the latest version of the Volkswagen Golf.

Last month, Martin Leach, Ford Europe's president and chief operating officer, resigned—after Ford Europe reported more losses. Now he is due to take over at Fiat Auto from Giancarlo Boschetti, who retires next year. Mr Leach made his name reviving Ford's Mazda affiliate in Japan, before landing the onerous Ford Europe job. He now seems determined to prove he can do better in the fire than he did in the frying pan. His product-development and marketing skills will serve Fiat well. Yet the terms of his departure from Ford imply a six-month or more “no competition” clause, something lawyers are thrashing out. A struggling Fiat awaits its saviour.

Fiat aims by the end of the fourth quarter to halve its net debt in June of €4.8 billion. Selling some 70,000 new Pandas is supposed to do much of this. If these sales do not materialise, that will say a lot about the firm's ability to survive. Fiat cannot afford any flops among its new models: every one must be a winner.

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Software patents

A clicking bomb

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An explosive row over how to protect intellectual property in Europe

WIDGET inventors file patents. Prose and pictures are protected by copyright. But what about a new piece of encryption software or an internet business method, such as Amazon.com's “one-click shopping”? Should they also be covered by patents, or do copyright and trade secrets suffice?

These questions underlie a heated controversy in Europe pitting open-source advocates, software developers and academics against big software firms, intellectual property lawyers and the European Commission. Because of the row, the European Parliament has again postponed the first reading of a directive on computer-related inventions, scheduled for this week. And it remains to be seen whether the parliament will tackle the controversial proposal when it reconvenes on September 22nd.

The issue of patents for software and business methods has been causing a stir in America ever since the Patent and Trademark Office started issuing patents on internet business methods in 1998, most famously that for one-click shopping. Proponents argue that these patents provide the necessary incentives to innovate at a time when more inventions are computer-related. Critics claim that such intellectual monopolies hinder innovation, because software giants can use them to attack fledgling competitors. Moreover, as software is often built on the achievements of others, writing code could become a legal hurdle race. By analogy, if Haydn had patented the symphony form, Mozart would have been in trouble.

If the debate is more heated in Europe, it is because the directive in question is supposed to achieve two things at once. For one, it aims to harmonise how computer-implemented inventions are dealt with across the European Union—in order to avoid situations in which an invention is protected in one member state but not in another. Now, although many patents are centrally awarded by the European Patent Office (EPO) in Munich, national courts have the final say over a patent's validity. In Britain, business methods are generally not patentable, but they can sometimes be patented in Germany. The EPO, by the way, granted Amazon a patent in May covering computerised methods of delivering gifts to third parties, a descendant of its one-click patent in America.

Such cases illustrate the directive's other thrust. The European Commission wants to avoid the American situation, in which case law drives authorities to issue computer-related patents all too easily, in particular for business methods and algorithms. Software, say to control an X-ray machine, should remain unpatentable, but the entire apparatus—the combination of software and hardware—could be protected by a patent. In the words of the directive, to be patentable an invention must make a “technical contribution”—meaning “a contribution to the state of the art in a technical field which is not obvious to a person skilled in the art”.

Unsurprisingly, this definition is particularly controversial. Larger software firms in the Business Software Alliance are happy. Smaller firms and open-source lobby groups, such as the Foundation for a Free Information Infrastructure, are up in arms. They think the directive's lack of clarity will make American-style patents possible, and are arguing for a more watertight definition.

Arlene McCarthy, the rapporteur of the European Parliament's committee for legal affairs and the internal market, has now proposed an additional test for patentability: an invention must teach a new way to use “controllable forces of nature” (really) and have an “industrial application”. This aims to strengthen the exclusion of pure software and business methods.

Finding the right balance will not be easy. Patents can be a spur to innovation, but they can also be an obstacle, and the great advantage of digital technology was supposed to be its very malleability.

Moreover, there is another headache. The harder it is to patent computer-related inventions in Europe, the wider will be the legal gap with America.

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Indian pharmaceuticals

Patently ambitious

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The global ambitions of India's biggest drug firms

AMONG the big winners from the new deal thrashed out at the World Trade Organisation to improve poor countries' access to patented medicines are, supposedly, drug firms in countries like Brazil and India, with expertise in producing cheap copies of them. But, in India at least, the industry has not greeted the deal with euphoria. Amar Lulla, joint managing director of Cipla, a maker of treatments for AIDS, malaria and tuberculosis, says that, so long as it does not get entangled in red tape, the accord might do a lot for patients in poor countries, but it is “not such a big deal in commercial terms”.

The big drug firms in rich countries have worried that Indian and other firms might abuse the deal to flood their markets. A greater concern, however, may be more straightforward. The most successful Indian drug firms see their future not in selling cheap drugs in poor countries in any case, but in penetrating “regulated markets”: Europe and, above all, America.

Their success in doing so already draws comparisons with India's information-technology prowess. Ranbaxy, the largest Indian pharmaceutical firm, now derives nearly half of its business from America and, says Davinder Brar, its chief executive, it is on the prowl for acquisitions in France, Germany and Italy. One day last month, shares in Pfizer, an American giant, fell by 3% after an analyst's report drew attention to Ranbaxy's patent challenge to its anti-cholesterol drug, Lipitor.

Ranbaxy and the second-biggest Indian drug firm, Dr Reddy's, have flourished by winning approval for the sale in America of generic versions of off-patent drugs. Both aspire to do more: to become “research-based” (Ranbaxy), “discovery-led” (Dr Reddy's) originators as well as cheap and clever copycats.

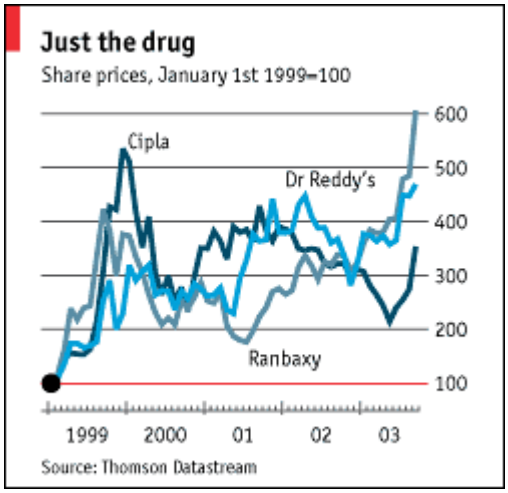
This would be a remarkable turn-around for an industry hampered by a history of protection, price control and licensed piracy. Under a 1970 patent law, manufacturing processes are protected in India, but products are not. Indian chemists became adept at re-engineering processes. To comply with WTO rules, however, India will, from 2005, have to protect product patents. Many of the 20,000 Indian drug firms will not survive.

Ranbaxy and Dr Reddy's both decided more than a decade ago to compete globally. Since America accounts for more than 40% of world sales, that meant selling there against the biggest and best. The risks are high. American firms have deep pockets and tenacious patent lawyers. To take them on, Ranbaxy and Dr Reddy's have to commit themselves to hefty litigation costs, and to high spending on research and development. Both firms say they have plans to boost spending on R&D to 10% of revenues.

Some context: Ranbaxy expects to reach its target of $1 billion in annual revenues by 2004. Pfizer, for example, has an R&D budget for 2003 of $7.1 billion. Mr Brar points out that money goes further in India. But not that much further.

The rewards of success in America for the Indian upstarts are as alluring as the competition is daunting. There are estimated to be drugs with annual sales totalling $42 billion going off patent before 2007. “First to file” status for a generic version of a drug brings the manufacturer a 180-day period of exclusivity, alongside the patent holder. In the high-stakes world of the American pharmaceutical market, it is, says Dr Reddy's chief executive, G.V. Prasad, “the jackpot”. Dr Reddy's hit it in 2001 with its version of Eli Lilly's anti-depressant, Prozac; Ranbaxy did the same last year

with its generic version of Ceftin, a GlaxoSmithKline anti-infective drug.



Its generic Ceftin still accounts for about a third of Ranbaxy's total sales in America. But as new competitors enter the market, prices and margins will tumble sharply. The trick is to have a long pipeline of patent challenges and applications for approvals of new generics. Many will fail, but as Sameer Narayan, an analyst with Enam Securities in Mumbai, puts it, to maintain the explosive growth seen last year, “Ranbaxy needs one Ceftin a year.” Acquisitions might ease the strain.

So far, much of Indian firms'R&D has gone into the reverse engineering of existing drugs, and the development of new tweaks on them: a new “delivery system”, say, such as an inhaler. But both Ranbaxy and Dr Reddy's are also spending heavily on the riskier business of research into new drugs. For now, Dr Reddy's licenses new discoveries to other firms for testing and development. But whereas Ranbaxy states its aspirations in financial terms—$5 billion in revenues by 2012—Dr Reddy's seems more driven by pride: to take an innovative product of its own to market.

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Chinese firms abroad

Spreading their wings

Sep 4th 2003 | SHANGHAI
From The Economist print edition

While all eyes are on foreign investment in China, the country's companies are busily buying up assets overseas

ANOTHER year, another record. Foreign direct investment (FDI) into China reached an estimated $53 billion in 2002—making it the world's top destination for such inflows and beating America into second place for the first time. This year, the Economist Intelligence Unit (EIU), a sister company of *The Economist*, predicts $62 billion of FDI into the "workshop of the world", despite the impact of the SARS virus and a sluggish world economy.

Meanwhile, little attention has been paid to another set of numbers: the amount that Chinese companies invest outside their own borders. Certainly, at $2.9 billion last year, or 0.4% of global FDI, the sum pales in comparison. Most Chinese companies have spent the past two decades building up and consolidating their domestic market shares, and even now only a handful have the size and resources to expand abroad. Yet as the economy expands, that number is growing. A report published in July by Roland Berger, a consultancy, says that almost three-quarters of mainland manufacturing firms surveyed already have foreign expansion plans under way.

Intriguingly, this trend is being led by natural-resource companies still controlled by the state. They are under orders from central government to secure reserves abroad in order to meet the country's booming demand for fuel and raw materials. The big three oil firms, Sinopec, Petrochina and China National Offshore Oil Corporation (CNOOC) have invested in 14 countries, including Kazakhstan, Yemen, Sudan and Myanmar—China is not fussy. CNOOC is now Indonesia's largest offshore oil producer after the takeover for $585m of Repsol Indonesia in 2002. Petrochina is planning a 3,000km (1,900-mile) pipeline from Kazakhstan to its refineries in the western region of Xinjiang, costing $2 billion.

Baosteel, China's biggest steelmaker, is negotiating the largest foreign manufacturing investment ever by a Chinese firm, according to a forthcoming issue of the *China Economic Quarterly*, a research publication. Baosteel hopes to take a controlling stake, worth $1.5 billion, in a huge $8 billion steel plant in Brazil. It plans to work with a local partner, CVRD, which controls the world's largest iron-ore mine. Baosteel is starting a lively push abroad, not least to help it avoid anti-dumping actions that have cost it some $150m in lost exports in the past six years.

Of equal importance is the hunt for foreign know-how. Huawei Technologies, a telecoms supplier headquartered in Shenzhen, across the border from Hong Kong, now has research facilities in Sweden, Germany and America. Recently, it said it would invest around $100m in India to expand its Bangalore facility, which works on mobile-phone software and broadband research. SVA, a consumer-electronics company, has taken a 75% stake in a venture with Japan's NEC to produce liquid-crystal and plasma screens.

Taking China to the world

Increasingly, however, Chinese companies look to foreigners not as a source of technology or assets, but as a market for their own products; the most ambitious, indeed, aim gradually to build global brands. This applies above all to Haier, China's leading electrical-appliance maker, which has 13 sites abroad, including factories in Iran, Indonesia and South Carolina, and plans a wholly-owned subsidiary in Delhi. But TCL, China's second biggest television maker, and Konka, a rival firm, have also invested in television manufacture outside China. While having foreign operations means they lose the cost advantage of Chinese production, these firms believe that, to gain better access to foreign markets, they must set up local production and buy local distribution.

Alas, few of these expensive investments seem to be helping Chinese firms move upstream from cheap products. There is as yet no Chinese Samsung, Sony or GE. Konka closed a high-end television factory in Mexico in 2001, because its brand had proved too weak to move upmarket. Meanwhile, even Haier's much-publicised foreign investments have, in truth, failed to broaden the company's appeal much beyond an ability to sell cheap white goods to Wal-Mart.

Such disappointments are leading to a new strategy: buying established foreign brands. China's D'Long Strategic Investments, rather than build up its own name abroad, concentrates on buying well-known but ailing foreign brands. It retains their marketing, distribution and R&D operations, but transfers the bulk of the manufacturing to China to cut costs. In 2000, D'Long bought Murray, a leading American lawnmower and bicycle maker, with $400m in financing provided by GE Capital. In July, it bought a stake in a jet project from a bankrupt German regional aircraft-maker, Fairchild Dornier. D'Long's president, Benny Li, says he has his eyes on other famous brands down on their luck, including Germany's Grundig, which makes televisions. Mr Li claims this is a better strategy than that followed by most of his rivals. “Haier is spending a lot of money building its own brand,” he says. “But Chinese brands are associated with cheap prices.” Foreign brands with Chinese input costs, on the other hand, offer potentially juicy profit margins.

There is no guarantee, of course, that this money will be spent any more wisely than, say, corporate Japan's in American property and Hollywood film studios in the 1980s. Like their Japanese predecessors, Chinese managers have no obvious expertise to help them make sensible investment decisions abroad.

Jonathan Woetzel, a Shanghai director at McKinsey, a consultancy, argues that the comparison with Japan is misplaced. “Chinese companies,” he says, “are more entrepreneurial, flexible and much more focused on profit than the Japanese. They change management and won't be patient. They use capital more efficiently.” In three years, D'Long has closed two of Murray's three factories, fired top management and some 650 workers, and moved the manufacture of low-end mowers to Jiangsu province. It is pressuring engine suppliers in America to cut prices, threatening to transfer their contracts to Japan's Suzuki. Mr Li says that he could halve the cost of a lawnmower if the engines were made in China rather than in America. He has attempted to move slowly enough to avoid pushing the unions representing Murray's workers too far.

This highlights another danger: too much success. Given the growing international fear of China, as a supposed exporter of deflation and a destroyer of western jobs, the spectre of Chinese firms buying up the world might carry the government into a new political storm.

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Face value

Back to school

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Can Dipak Jain stay on top in today's unusually harsh market for business education?

AS A new class of students gets down to work, life has rarely seemed tougher for the business schools they are attending. Ask Dipak Jain, dean of the Kellogg School of Management at Northwestern University—rated America's leading business school by *Business Week* and the world's best by the Economist Intelligence Unit, a sister company of *The Economist*.

Mr Jain, a modest, soft-spoken Indian who came to America to do his doctorate, is having to contend with a multitude of threats. Least troublesome are the usual problems of being a front-runner, and of stepping into a job previously held by a giant of the profession. Mr Jain's predecessor, Donald Jacobs, transformed Kellogg from a little-known school near Chicago into a global leader in business education, stunning Ivy League competitors in the early 1990s when it surged past them. Mr Jacobs pioneered Kellogg's "customer-focused" approach, which—who would have thought it?—makes students a priority and prefers teamwork to the sharp elbows that give MBAs a bad name in some circles. Big shoes to fill.

Still, the most difficult challenges are those that Mr Jain shares with his counterparts at other business schools. Gone are the days when MBA students could turn up for interviews in wrinkled khakis, certain that they would receive a plum offer by graduation day. Offer rates—over 95% by graduation during the bubble years—were as much as a fifth lower at elite business schools this year, the second bad year in a row. Add to that a general anti-business backlash after any number of corporate scandals. Although business schools have been fortunate in escaping, so far, more of the blame for the scandalous behaviour of their "products" than have investment banks, corporate boards and the like, a growing number of critics argue that MBA programmes need a radical overhaul. An article just published by Booz Allen Hamilton, a consultancy, derides "cookie-cutter" MBAs that leave a big gap between what graduates offer and firms need.

The strategy adopted by Mr Jain falls far short of a radical restructuring. Rather, a cynic might be forgiven for concluding that Mr Jain, one of Kellogg's top marketing professors before becoming dean in 2001, has indulged in a bit of post-bubble rebranding, covering up the deficiencies of the traditional MBA with some fashionable, but essentially empty, worthiness. Mr Jain's conversation drips with references to a "culture of caring" and to "social responsibility".

Yet that would be unfair. Although MBA rankings have forced every business school to pay closer attention to what its students want, Kellogg is still the standard-setter, and Mr Jain is working hard to

keep it so. He continues, part-time, to teach, not least to keep personal contact with students. In response to the tough job market for MBAs, he has devoted far more of his time to deepening links with potential employers. More than ever, job-placement rates and starting salaries are keen points of competition among business schools. Mr Jain's efforts to find work for students compare favourably with those of some of his counterparts. His staff struggle to keep up with the pace at which he roams the globe building the “Kellogg brand”. Perhaps his top priority has been to strengthen Kellogg's alumni network, which still lags behind those of Harvard, Wharton and Stanford, both as a source of funds and, increasingly important now, of jobs for graduates.

Some of Mr Jain's rivals are imitating this strategy. As Ted Snyder, dean of the University of Chicago's business school, concedes, alumni who are enthusiastic about maintaining strong ties to their school often do an *alma mater* more good than the ruthless, cold-blooded capitalists for which the University of Chicago is famed. Mr Snyder now wants to make Chicago, too, a more caring place. Other deans are in damage-control mode. Wharton, down in the rankings, has revamped its career-services office and is trying to cheer up its downcast faculty.

Of Enron and ethics

More intriguing are Mr Jain's changes to Kellogg's core curriculum. One aim is to allow students to specialise sooner, with luck making them more useful to employers. Other changes seem designed with one notorious Kellogg alumnus very much in mind: Andrew Fastow, the disgraced former chief financial officer of Enron. This year's MBA students will find courses on “leadership” and “ethics” to the fore. A class on “leadership in times of crisis”, once optional, is now mandatory. And there is a new core course on “business in its social environment”.

Here, Mr Jain is tapping into the *zeitgeist* as much as leading it. Many of the same buzzwords—leadership and ethics, in particular—are popping up on campuses everywhere. Given the striking ethical failures of some recent corporate leaders—the first generation of bosses for whom it was the norm to go to business school—it is no surprise that business schools make a big deal of their improved offerings on leadership and ethics.

True, Harvard and Wharton have focused on leadership for years—but the behaviour of some of their alumni (Enron's former chief executive, Jeffrey Skilling, has a Harvard MBA) only shows how hard it is to promote ethical leadership. Business schools take varying approaches to the issue. Columbia aspires to discuss ethics in every course, rather than teach ethics separately. The University of Maryland's business school now takes students to visit white-collar criminals in prison. Will that prevent the emergence of more like Mr Fastow and Mr Skilling? Hope springs eternal. But if they do not know it already, Mr Jain and his fellow deans may yet find out the hard way that, even if leadership and ethics can be taught, it does not mean that business-school graduates, faced with enormous temptations, will be much more likely to resist.

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World trade talks

The Cancun challenge

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From The Economist print edition

Alamy

The current Doha round of trade talks was supposed to help the world's poor. But a range of disagreements have stymied the negotiations. To keep the round alive, next week's meeting in Mexico needs to produce some real progress

Get article background

TRADE ministers from the 146 member countries of the World Trade Organisation (WTO) arrive in Cancun on September 10th for what officially is yet another yawn-inducing routine meeting to mark the halfway point of the current round of global trade talks. But the meeting promises to be anything but routine, or boring. Every negotiator knows that, in reality, the Cancun meeting will be a desperate effort to keep the trade talks alive.

Since it was launched in the Qatari capital of Doha in November 2001, the WTO's latest round of multilateral trade talks has made almost no progress. Every deadline has been missed as politicians, from rich and poor countries alike, have proved reluctant to make tough compromises on issues from freeing farm trade to cutting tariffs on industrial goods.

Recent weeks have seen two small rays of light. On August 30th, after years of negotiations, a deal was finally agreed to allow poor countries to import cheaper generic drugs in emergencies to fight scourges such as AIDS. Also last month, the United States and the European Union, the titans of global trade, agreed to offer a joint proposal for liberalising farm trade.

Both developments are welcome, and long overdue. But the drugs deal, by itself, is unlikely to do much to help the ill and dying in the poorest countries. In the overall context of world trade, moreover, the drugs agreement is small potatoes. And it is too early to say whether the vague American-EU joint approach on farm trade will lead to a genuine breakthrough on this thorniest of all trade issues.

On the biggest questions, fundamental divisions remain: over the scope of the negotiations, over how far countries are willing to reduce trade barriers, and over the role and responsibility of poor countries themselves, which were meant to be among the biggest beneficiaries of the current round. Without a breakthrough in Cancun, the chances of finishing the talks on time by January 2005, or even of concluding them at all, are slim. A failure to reach agreement could be a disaster for the multilateral trading system, the world economy and, most of all, for the world's poor.

High hopes

Launched in November 2001, barely two months after the September 11th terrorist attacks, the Doha round of trade talks began with high hopes. Just agreeing to embark on a new round of talks was a victory after the debacle of the WTO's 1999 meeting in Seattle, when efforts to do the same ignominiously collapsed amid anti-globalisation riots on the city's streets.

The Doha agenda was ambitious, aiming not only to cut barriers in highly protected economic sectors, such as agriculture and services, but to write new rules for globalisation in areas such as investment and competition policy. Most of all, Doha was purportedly focused on helping the poor. Rich countries promised to open their markets in areas, especially farm goods and textiles, which matter most to poor countries. They promised to help poor countries with cash, technical assistance and “special and differential” treatment in implementing any agreement. To underline the pro-poor message, the words “development” and “developing” were included 63 times in the 10-page document that launched the Doha round.

Rhetoric is cheap, but there is little doubt that the Doha round has the potential to bring substantial economic benefits to poor countries. A new analysis by the World Bank, published in its Global Economic Prospects on September 3rd, suggests that an ambitious, though achievable, reduction of trade barriers in the Doha round could boost global income by between $290 billion and $520 billion a year. Well over half of these gains would go to poor countries. By 2015, the World Bank reckons, a successful Doha round could lift 144m people out of poverty.

If trade in services, from shipping to accountancy, were significantly freed, another Doha goal, the benefits could be even greater. Nearly all economists agree that freer trade in services would lead to gains several times larger than those from lowering barriers to goods alone

Despite these potential gains, governments in both rich and poor countries pedalled backwards from the moment they agreed to the Doha agenda. The EU, champion of mollycoddled farmers, was quick to downplay the extent to which it had committed itself to free farm trade. The Americans talked big, putting forward radical proposals to free trade in agriculture and industrial goods. But their actions, particularly last year's boost to American farm subsidies, suggested the opposite.

We're special

Many poor countries were defensive from the start. Still smarting from what they regarded as unfair treatment in the earlier Uruguay round of trade talks which were concluded in 1994, they moaned about the iniquities of past trade deals and focused on minimising their responsibilities in the Doha round. “Special and differential treatment”, poor nations seemed to feel, should mean “we do nothing and the rich world opens up”.

The result has been stalemate. Trade negotiators in Geneva made modest progress on technical details, but the overall talks stalled. In farm trade, a chasm between big agricultural exporters, such as Australia and Argentina, which want to tear down barriers and slash trade-distorting subsidies, and the big farm subsidisers, especially the EU and Japan, who want minimum change, meant that negotiators have not even agreed on how to conduct and measure progress in the negotiations. These “modalities” should have been decided by April. Instead the decision was put off to Cancun.

The paralysis on agriculture spread to the rest of the talks, because many developing countries were reluctant to make concessions elsewhere without progress on farm trade. Efforts to agree a way of measuring cuts to industrial tariffs also stalled, and were put off to Cancun. Nor has there been much headway on agreeing the scope of negotiations in controversial new areas such as investment.

The result is that trade ministers next week have five days to reach a series of complicated political compromises after almost two years of stalemate. A month ago that seemed an impossible task. WTO insiders at Geneva were privately fretting that the Cancun meeting could easily become another Seattle-style debacle.

Fortunately, the agreements on drugs and agriculture announced last month, though modest, seem to indicate that trade negotiators, and their political masters, are at least waking up to the dangers of the

round collapsing. With so much at stake, next week's meeting might just salvage the talks. The drugs deal removes an emotive and highly symbolic issue which could have torpedoed the entire round. And the American-EU announcement on farm trade at least signals that a final deal is still possible.

Agriculture is the issue which puts the most pressure on rich countries. The World Bank estimates that over two-thirds of the overall benefits from Doha's barrier-lowering would come from freer farm trade. It is easy to see why. Farm protectionism is a scandal. Over three-quarters of the world's poor live in rural areas, mostly dependent on agriculture. Yet the rich world spends over $300 billion a year supporting its farmers, more than six times the amount it spends on foreign aid. Average agricultural tariffs in rich countries are many times higher than those on manufactured goods. On individual products, barriers are often much higher. In Japan, for instance, tariffs on rice, at up to 1,000%, are ludicrous.

This lavish support distorts prices and blocks market access for poor countries that are natural exporters of farm products. Cotton is a classic example. The world's biggest exporter of cotton is America, even though its production costs are far higher than those of African producers such as Mali or Burkina Faso. America's 25,000 cotton farmers receive $4 billion of government subsidies in return for producing $3 billion-worth of cotton. These subsidies push down the world market price, hurting, among others, 11m cotton producers in West Africa. Similar stories abound in other products. From beef to cereals, world markets are distorted by rich country's cosseting of their farmers.

Less well known, however, is that poor countries themselves engage in farm protectionism. They cannot generally afford subsidies, but tariff rates on agricultural goods are often even higher in poor countries than in rich ones. While rich countries would benefit most from getting rid of their crazy agricultural systems, the World Bank analysis suggests that 80% of the benefits reaped by poor countries from farm reform would come from reductions in the barriers between poor countries themselves.

Can the Doha round cut through this morass? Much depends on what the United States and the EU decide to do. Their agreement last month was something of a fudge. On cutting agricultural tariffs, they simply added their opposing positions together. America had long demanded that countries with higher tariffs on farm goods should cut them more. The more protectionist Europeans, by contrast, wanted all countries to cut their tariffs by an equal percentage. They now suggest a mixture of the approaches.

On export subsidies, America lowered its ambition, giving up the goal of eliminating export subsidies altogether. The Europeans, in turn, agreed to get rid of subsidies in certain products that matter to poor countries (without naming what those products might be). Their joint framework also recognises that the poorest countries needed special treatment in freeing farm trade, but implies that big agricultural exporters, such as Brazil, should not get such privileges.

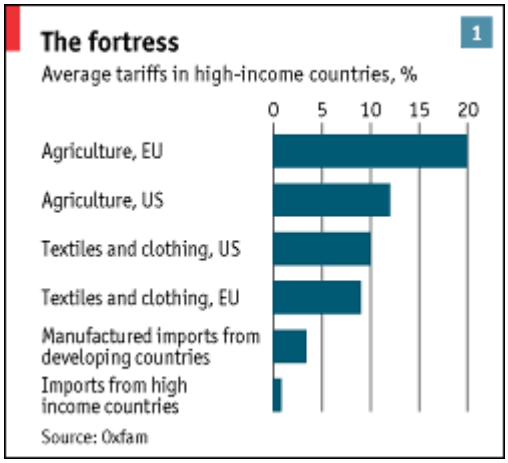
The deal's ambition—or its potential impact on poor countries—is difficult to gauge because it includes no numbers, dates or references to specific products. And yet despite its vagueness, the American-EU framework galvanised debate. Suddenly a plethora of proposals for how to structure the farm talks are on the table, largely modelled on the American-EU approach. Most important is a plan presented by 20 developing countries, led by Brazil, India and China, which represent 60% of the world's farmers. This group followed the American-EU approach but, predictably, demanded more subsidy cuts and tariff reductions from rich countries while offering much less ambitious liberalisation from poor countries. In particular, it suggested poor countries should be able to use the “average” formula for cutting tariffs, while rich countries should be required to cut their higher tariffs more.

The task at Cancun will be to forge compromise between the American-EU position and that of these developing countries, while somehow keeping extreme agricultural protectionists, such as Japan, on board. Ideally, that compromise should push both sides into more liberalisation. One risk is that the negotiators settle for the lowest common denominator: an unambitious effort to reduce support for the rich world's farmers coupled with even fewer demands on poor countries, in the name of “special and differential treatment”. That compromise, as the World Bank's numbers show, would forgo most of the potential economic benefits of the Doha round.

Textiles and beyond

The debate about how to reduce barriers to the trade of industrial goods follows a similar pattern. In this area, too, the public focus of the Doha round has been on the rich world's need to cut its barriers to the exports of poorer countries. While overall rich-

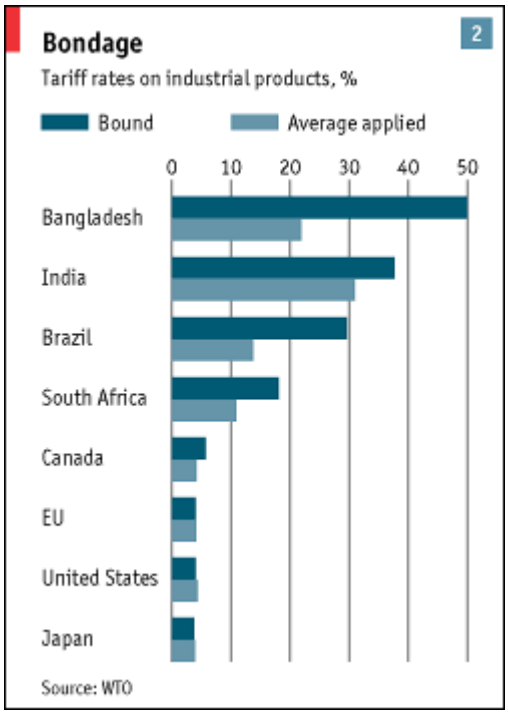
country tariffs on manufactured goods are low, they are high in areas, such as textiles and footwear, that are most important to poor countries. On average, tariffs applied by rich countries on the types of goods that poor countries produce are four or five times higher than the tariffs on goods usually imported from other rich countries (see chart 1). As a new study for Oxfam, an aid agency, points out, the tax rate which America applies to imports from Bangladesh is 14% compared with a rate of 1% on imports from France. Rightly, Oxfam points out that an important measure of progress in the Doha round will be a commitment by rich countries to reduce these high tariffs.



But, again, the biggest potential gains for poor countries themselves, contrary to popular belief, are actually from tariff cuts in other poor countries. For the past decade, trade flows between poor countries have risen twice as fast as overall global trade, precisely because many poor countries have been cutting tariffs. Trade between developing countries now makes up 11% of all global trade.

Nonetheless, barriers between poor countries are still far higher than those between rich and poor countries. And the maximum barriers allowed under WTO rules—that is, the level at which countries have "bound" their tariffs—is often higher still. In America, for instance, the average tariff on industrial goods is 4%. In Brazil, by contrast, the average tariff level permitted under trade rules is 30% while in India it is almost 40%. The average tariff levels actually applied in Brazil and India are 14% and over 30% respectively (see chart 2).

Although poor countries would gain most from slashing these barriers, the debate at Cancun is almost certain to revolve around the question of how much the rich world should "give" and how little poor countries should "give up". Most rich countries want a formula which requires those countries with higher tariffs to cut more, although with special provisions for poor countries, especially the very poorest. Rich countries are willing to make extra efforts to reduce barriers in sectors such as textiles, but they want the more advanced developing countries to do the same.



But most developing countries are reluctant to expose their domestic industries to more international competition. India is the most extreme example, and is deeply opposed to a formula that demands bigger cuts from those with higher tariffs. China thinks it should do less than others because it has just cut tariffs to join the WTO. Big farm traders, such as Brazil, are loth even to discuss industrial goods until they see gains in agriculture. Worse, many supposed champions of the poor, such as Oxfam, reinforce this mercantilist mindset. "Responsibility for Cancun's fate", Oxfam writes in its most recent report on the subject, "resides overwhelmingly in the national capitals of the rich world." As far as industrial goods are concerned, that is simply not true.

The final area of controversy at Cancun—how far to broaden the Doha round into new areas—also pits poor countries, notably India, against rich ones, specifically Europe and Japan. This time, however, poor countries have more of a point.

At the insistence of the Europeans and Japanese, the Doha agenda promised to launch full-fledged negotiations at Cancun to write rules in four new areas. These are investment policy, competition policy, procedures for transparency in government procurement, and trade-facilitating policies, such as customs procedures—generally known as the four "Singapore issues" after the summit at which they were first raised.

The prospect of expanding the WTO's remit to these new areas has long frightened many poor countries. Some have worried that rich governments would use any new rules to dictate their investment regimes, a fear that the anti-globalisation protesters have encouraged. More reasonably, many small poor countries have worried that they simply do not have the political or technical ability to negotiate about such rules. After all, more than half of the WTO's members lack even a domestic competition authority.

Off limits

There are signs that most poor countries could, albeit reluctantly, accept negotiations on government procurement and trade facilitation. But they consider competition and investment as off-limits. India, which objected most to the introduction of the Singapore issues into the Doha round, has said loudly and repeatedly that it will not allow negotiations in any area, though it clearly cares most about investment. But the EU and Japan have, so far, refused to budge from their position that negotiations must be launched in all four areas. The EU sees progress on the Singapore issues as a necessary exchange for any concessions it will make on agriculture. Exactly why is hard to fathom. European companies have not been loudly demanding new WTO rules on investment.

It now no longer looks likely that the Cancun meeting will collapse into a Seattle-style fiasco. The deal on drugs for poor countries has removed one dangerous obstacle, and farm-trade negotiations have at least begun to move. But to be judged genuinely successful, negotiators at Cancun will have to do more than avoid an embarrassing breakdown. On a range of issues, the Doha round is clearly in trouble. To keep it alive, Cancun needs to produce some real progress in all three areas—farming, industrial tariffs and new topics such as investment and competition—that nearly all 146 participating countries, however reluctantly, can support.

Given the difficulty rich countries have had in making any progress towards liberalising farm trade, and the mercantilist instincts that drive many poor countries, the prospects are still not good. But the stakes, especially for the world's poor, should be too high for any country, rich or poor, to accept failure willingly.

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Stockmarkets

Looking up?

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Reuters

Share prices have been rising around the world as growth picks up. But growth and the markets' climb look hard to sustain

IT MAKES for a pleasing change. Share prices in most big economies fell in 2000, 2001 and 2002, and until March, just before America and Britain invaded Iraq, this year looked set for a repeat performance. Since then, stockmarkets have climbed: America's S&P 500 by 28%, Britain's FTSE 100 by 30%, the Ebloc 100 (an index of euro-area share prices) by 39% and Japan's Nikkei average by 41%. Although still far off their all-time highs—in Japan's case, very far off—this week many stockmarkets reached their highest points in more than a year. Enjoy the sun while it lasts; clouds still loom.

In large part, the global stockmarket rally owes much to a strong run of economic statistics from America, for years the engine of global economic growth. A survey by the Institute of Supply Management published on September 2nd showed that manufacturing activity had increased. That comes on top of last week's revision to second-quarter GDP, which showed that the economy had grown at an annualised rate of 3.1%, not 2.4% as originally thought. “Just about every number that has come out in the last few weeks has been above market expectations,” says Russell Jones, an economist at Lehman Brothers.

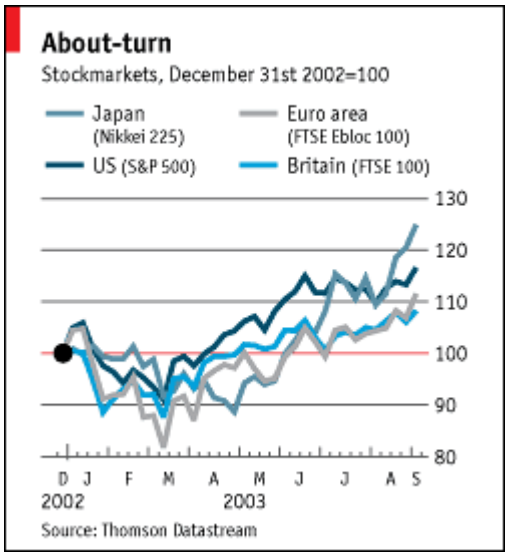
In the euro area, which flirted with recession in the first half of the year, talk of recovery so far remains just talk. Still, there are signs of life. Germany's Ifo index of business confidence has risen for four months running. Pundits now expect modest growth for the year as a whole. The ECB has cut rates, though not aggressively. Governments have largely ignored rules that were meant to curb borrowing. Even Japan, an economic zombie for the past 13 years, has been growing respectably of late. Japanese inventories are lean, industrial production has been strong, machinery orders are robust. Some forecasters expect the economy to grow by 2% this year.

With growth have come healthier corporate profits, not least in America. These are largely the product of savage cost-cutting, which has also boosted productivity—it shot up in the second quarter—and kept employment depressed. According to national accounts data, adjusted pre-tax company profits grew by $78.5 billion in the second quarter, compared with a fall of $4 billion in the first quarter. The post-tax profits of companies in the S&P 500 have been broadly rising since hitting a nadir of $10.51 a share in the fourth quarter of 2001, according to First Call, a research firm that tracks analysts' expectations.

Small wonder that analysts have been ratcheting up their forecasts as the economy has improved

further. The consensus, says First Call, is that profits rose to $13.11 a share in the second quarter and will nudge $14 in the fourth quarter. Benefiting most from rising expectations have been financial, energy and technology firms—which explains why the tech-heavy NASDAQ stockmarket has regained its late-1990s zip in recent months.

Against such a backdrop, some recovery in stockmarkets was perhaps to be expected. In the S&P 500, the information-technology sector has gone up by 35% since the March low, discretionary consumer goods by 34% and industrials by 27%. In Europe and Japan, many of the most bombed-out sectors have also been the best performers. Having dropped for what seems like an age, anything Japanese and financial has rocketed in recent months: the insurance sector is up 44% since March, and banks by 38%.



But the sharp rise in the stockmarket has made expensive shares look still pricier. Using past profits as the denominator (rather than shaky forecasts of future earnings), the S&P 500 trades on a price/earnings ratio of 20, according to First Call, compared with an average since 1970 of 17.4. Japan's Topix index, a broader measure than the Nikkei, is on a giddy 115.

A question of sustainability

Hence the question for economies and, by extension, stockmarkets: is economic growth in America, or anywhere else, sustainable? There are two answers to this. Optimistic people—of whom, judging by share prices, there are a lot—argue that recovery is not only sustainable but in America has followed a textbook pattern. The economy has emerged from the shallow recession of 2001 thanks to the normal monetary and fiscal medicine, albeit applied in far greater doses than previously.

The less rosy view, at least about the world's two biggest economies, is that America is mortgaging its future growth prospects ever more dangerously, and that Japan is still mired in the problems caused by its own bubble.

The recovery in America is unlikely to be a normal one because the recession itself was abnormal, at least for modern times. It was caused not by stamping on the monetary brakes but by the popping of one of the biggest stockmarket bubbles in history. Bubbles are blown up with the help of huge debts, which must be paid off at some time and in some way if normal growth is to be resumed.

This has not happened in America, despite higher profitability. There is anecdotal evidence of some balance-sheet restructuring, but overall corporate indebtedness has, in fact, risen. Thanks to low interest rates and cheap mortgages, household debt has continued to climb. Private-sector debt is now 180% of GDP.

The public sector is not saving either. A budget surplus has been turned into a deficit which the International Monetary Fund says could reach 6% of GDP next year. If America cannot save (if it does, growth will fall), it must borrow the savings of others: hence its current-account deficit is 5% of GDP and growing by a percentage point a year. At some stage overseas investors are sure to want to get more reward for their money in the form of higher returns, which means either lower asset prices or a lower dollar, or both. None of these outcomes look good for the stockmarket.

Japan, in contrast, does have a big current-account surplus. But its companies are so awash with debt that taken as a whole they are probably insolvent, and their parlous state still cripples the banking system. As in America, the government has had to spend. But it has done so for longer and its ratio of gross debt to GDP is 150% and rising. Despite this spending, the economy has dipped in and out of recession over the past ten years—the present recovery is the fifth since the bursting of the bubble—because it has still not done anything about the deflationary effects of excess corporate debt and overcapacity that bubbles leave behind them.

There are signs that the Bank of Japan may at last be doing something about those problems by creating inflation. In recent months it has had to intervene on a huge scale to stop the yen rising. In contrast to its previous interventions, it has allowed the yen it has printed to buy dollars to flow into the real

economy. But there is little evidence that this is a coherent policy. And stockmarket investors have not made money in the past few years betting on Japanese policymakers doing the right thing. That would be a pleasing change indeed, but an unlikely one.

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About sponsorship

The New York Stock Exchange

Grasso's gross-out

Sep 4th 2003 | NEW YORK
From The Economist print edition

The NYSE's chairman sets a new standard for executive compensation

RICHARD GRASSO, the chairman of the New York Stock Exchange (NYSE), calls himself the CEO of capitalism. His behaviour may shed light on why both chief executives and capitalism are widely disliked. In a stiff bear market, as investors in companies trading on the NYSE lost billions, and as investment banks supposedly regulated by the exchange were shown to have acted grubbily, Mr Grasso quietly accumulated a fortune.

In June, under pressure from the Securities and Exchange Commission (SEC), the NYSE said that it would provide information about Mr Grasso's compensation. Earlier, it had announced a broad re-examination of its own governance. The first hard information emerged on August 27th, supposedly a good time of year for companies to disclose what they want no one to hear. The exchange issued a statement noting that Mr Grasso's annual salary was at least $2.4m. More arrestingly, it stated that he had built up savings and retirement accounts worth $140m. Mr Grasso will now draw this huge sum, purportedly to make it easier to plan bequests to his heirs. Mr Grasso's tenure was also extended by two years, to 2007.

EPA

Now ride off into the sunset

On Wall Street, Mr Grasso's compensation package met with mixed reactions. Investment bankers were unfazed, perhaps because elephantine pay packets are common in their trade. Goldman Sachs's boss, Henry Paulson, for example, sits on the NYSE's board, and consequently is one of a small group overseeing Mr Grasso's contract. His firm's trading operation is the second-largest on the exchange's floor, meaning that he controls one of the largest blocks of votes for future board appointments. Mr Paulson made a lot of money in the initial public offering of Goldman shares in 1999. This year, he and others among Goldman's top brass were granted a new compensation scheme that could bring each up to $35m a year.

On the floor of the exchange, however, others were less passive. Long-standing members say they were stunned by Mr Grasso's compensation. Three times in the past three years the NYSE has imposed higher fees, twice for floor traders and once for listed companies. Members were told that the extra money was needed to pay for regulatory costs and new technology, but some now grumble that Mr Grasso has been a prime beneficiary.

Building a reputation

At City Hall, too, the pay package has been poorly received. Mr Grasso is trying to win construction subsidies from New York City, which has deep financial problems. Why, city fathers may wonder, should they hand over money to an organisation that can afford to pay so much to a single employee?

The most pointed response, however, has come not from New York but from Washington, DC. On September 2nd, William Donaldson, chairman of the SEC and Mr Grasso's predecessor, wrote to the exchange. Mr Donaldson was particularly harsh about the NYSE's willingness to extend Mr Grasso's contract while it was still reviewing its governance policies. “The pay package raises serious questions regarding the effectiveness of the NYSE's current governance structure,” he wrote.

Mr Donaldson appended a long list of demands for information about Mr Grasso's pay. Mr Grasso is said

to have been guaranteed a return of 8% on his deferred compensation (the NYSE would not confirm the existence of this guarantee). Please describe the guarantee's terms, asks Mr Donaldson. Tell me whether other employees have similar arrangements.

The head of the SEC also wants to know how the pay package affects the exchange's profits, and how it was paid for. He wants to see the minutes of relevant meetings of the exchange's compensation committee, and to know how the members of that committee were chosen, and whether any of them have financial relationships with Mr Grasso. And so on. And all, if you please, by September 9th.

Seething

In better times, the tale of Mr Grasso's pay might have been merely embarrassing. In the current climate, the consequences could be far worse. Traders are seething and the SEC is asking pointed questions. The exchange's reputation, perhaps its most valuable asset, has been hurt. Mr Donaldson's awkward questions may yet cause even more unwelcome details to come to light.

Some members fear that the SEC might try to strip away the exchange's regulatory powers: both the exchange and the SEC looked dopey while Eliot Spitzer, New York state's attorney-general, harried Wall Street last year. The SEC now has a chance to look smarter at the exchange's expense. A weakened New York Stock Exchange would be a poor legacy for Mr Grasso to hand on, and hardly a justification for an outsized reward.

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About sponsorship

Executive Life

Haggling

Sep 4th 2003
From The Economist print edition

A settlement to the Executive Life scandal may be in sight

Get article background

DURING a three-year investigation by America's Department of Justice into Executive Life, a Californian insurer that collapsed in 1991 and was bought by Crédit Lyonnais, a big French bank, it sometimes seemed that the affair was about little more than transatlantic regulatory nit-picking. This week proved how much bigger the scandal really is.

French government sources say that a deal involving the bank, and a number of others, in the payment of hundreds of millions of dollars in fines is imminent. The final details of a complex settlement between American federal prosecutors, French officials, and the bank are still being negotiated, and these then must be submitted to a federal judge for approval. But, French sources say, the outlines of the settlement deal have been agreed in principle. These, in turn, have been broadly confirmed by an American lawyer close to the negotiations.

Faced with the imminent unsealing of criminal indictments in the United States alleging that it committed fraud, Crédit Lyonnais—which was state-owned at the time of its purchase of Executive Life but since has been privatised—has agreed to pay a fine of $100m, the price for keeping its banking licence after it admitted wrongdoings in its purchase and subsequent re-sale of Executive Life between 1991 and 1995, according to officials in Paris. The bank's American business will be on probation for a year or two, sources say. Its merger with Crédit Agricole, another French bank, which would have been at risk if prosecution of the bank had gone ahead, now looks safer.

But that is not all. Sources also say that the Consortium de Réalisation (CDR), a state-owned body that was set up to take over Crédit Lyonnais's bad assets (including the Executive Life dossier) in 1995, will pay a separate $100m fine to the Federal Reserve, which supervises America's banks. The CDR is also paying yet another $350m into an escrow account. That money is earmarked for any policyholders of Executive Life who lost out as a result of the French involvement in the insurer. MAAF, a French insurer that was also involved, is another party to the settlement, according to French officials. It is paying a $10m fine and a $25m contribution to the policyholders' pot.

However even if this “settlement” goes ahead as expected, French problems are far from over. The escrow account explains why. It is being set up to cover any losses incurred in a civil suit launched by California's Insurance Commissioner against CDR and Crédit Lyonnais, seeking more than $3 billion in restitution on behalf of Executive Life's policyholders. This civil case will continue after any settlement of criminal charges and its existence is vital to understanding why Crédit Lyonnais and CDR have been so anxious not to plead guilty to a fraud, as that admission in the criminal case would leave them utterly defenceless in the civil case. One possibility which has been floated is that they will admit, instead, to the lesser offence of failing to disclose information to the Federal Reserve, though that may not help them much in the civil case.

This is where tough negotiations are still continuing, according to French sources. Crédit Lyonnais issued a brief statement on September 3rd saying a final agreement with the justice department is “weeks away”. Might things yet fall apart? That is possible. But the French government is desperate for an end to the long-running case, and seems willing to let the French taxpayer foot most of the bill to achieve this.

One thing is still unclear: will the settlement include Artémis, a holding company owned by François Pinault, one of France's most powerful business tycoons? In the early 1990s, Artémis bought from Crédit Lyonnais not only a huge portfolio of junk bonds owned by Executive Life, but also later the insurance

company itself. Mr Pinault made substantial profits from the deals, while failing to disclose key information to American regulators.

Artémis is also a defendant in California's civil case, and Mr Pinault potentially faces a big bill for damages. French officials say that, for this reason, Mr Pinault is keen that Artémis join any criminal settlement being negotiated by the French government but so far, they say, the firm has not been included. Meanwhile America's justice department is continuing to investigate Artémis.

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About sponsorship

Financial litigation

Toxic finance

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From The Economist print edition

Lawyers turn their attention to “death spiral” bonds

MORE work may be on the way for Wall Street investment firms' heavily laden lawyers. Having settled with New York state's attorney-general, Eliot Spitzer, and the Securities and Exchange Commission earlier this year after a series of high-profile scandals, and having braced themselves for the resulting private litigation, they may soon face yet another problem. In a recent report, NERA, an economics consultancy, and Piper Rudnick, a law firm that is defending banks against the new lawsuits, predict a “wave” of litigation.

The cause is a particular type of convertible bond (debt that can be swapped for shares after a set date at a specified price) known as “death spiral” convertibles. These bonds, also called “toxic” convertibles, “floorless” convertibles and other rude names by those who issued them, were briefly popular in the late 1990s before the end of the dotcom bubble in 2000.

Death-spiral convertibles were issued by companies in such poor shape that they could not raise capital in orthodox ways. Mainly, they were bought by hedge funds. Unlike most convertible bonds, death spirals could be converted into shares at a discount to the share price at issuance, not at a premium. Further, death spirals converted not into a specific number of shares, as regular convertible bonds do, but into a fixed dollar value. The lower the share price, the more shares you got.

These features spelled trouble for issuers. In effect, a convertible consists of two bits: a normal bond, plus an option to buy equities. Buyers of traditional convertibles often sell issuers' shares short in order to offset the option element and leave themselves with what amounts to a pure bond. Because of the discounted conversion prices in death spirals, this strategy became more rewarding. The fact that the debt could be converted for a set dollar value of shares added an extra incentive to sell short. Share prices were thus driven down and down.

Theo Vermaelen and Pierre Hillion, two professors at INSEAD, a French business school, have studied over 400 death-spiral bonds issued between 1995 and 1998.* They find that in the year after issuing such bonds five out of six firms saw their share prices fall. On average, prices fell by 34%. Even so, say the authors, the mechanics of death-spiral bonds were not necessarily the cause. They suggest that the mere act of issuing such a security was a sign of financial distress, and thus encouraged investors to sell.

Plaintiffs' lawyers are unimpressed by such nuances. John O'Quinn, a Houston lawyer who has done well from breast-implant and tobacco suits, is now preparing cases against those who profited from death spirals, on behalf of those whose shares tanked. Although most death spirals were arranged by small firms far from Wall Street, Mr O'Quinn is going for the deepest pockets he can find. In a case brought by JAGMedia Holdings, an online information supplier, he has listed almost every leading American financial institution and many European ones as defendants. He alleges that they enabled investors to short-sell the company's shares.

Another death-spiral suit of Mr O'Quinn's was dismissed recently by a New York judge. However, an earlier case may give him hope. In 2001, Log On America, a bust internet firm, sued Marshall Capital, a subsidiary of Credit Suisse First Boston, for $100m. CSFB settled for $3.25m. Mr O'Quinn and his ilk will hope that Wall Street, rattled by Mr Spitzer and a bad press, will now yield bigger payouts.

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* “Death Spiral Convertibles”. Forthcoming in the *Journal of Financial Economics*

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Security and financial services

The hunt for dirty money

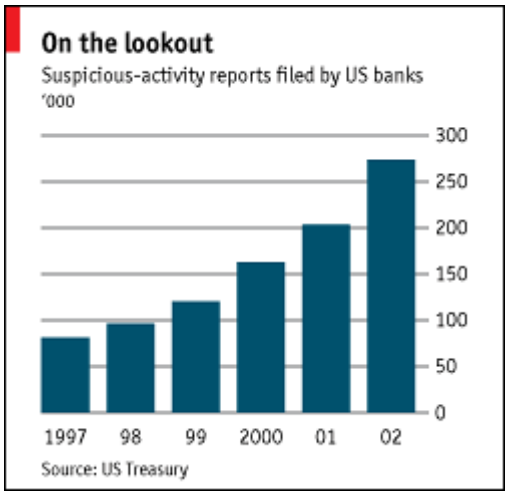
Sep 4th 2003 | CHICAGO
From The Economist print edition

How the Patriot Act is affecting America's banks and brokers

SEPTEMBER 11th 2001 is very much on the minds of America's financial industry. Not only is the anniversary of that day's terrorist attacks imminent, but by the beginning of October financial-services firms will have to comply with new federal rules to improve their screening and tracking of customers. These are the latest in a string of new regulations emanating from the Patriot Act (strictly, the USA PATRIOT Act), which was hurried through Congress in October 2001. They are causing banks, broking firms, mutual funds, hedge funds and others to spend many millions of dollars on new technology, employees and procedures.

The Patriot Act aims to track and cut off terrorists' funds, largely by expanding anti-money-laundering regulations. According to the Treasury Department, $137m has been frozen since the attacks of 2001. Financial institutions are obliged to act as the law's eyes and ears. Failure to comply can bring fines of up to $1m and criminal charges against officers of offending firms; the Patriot Act also grants immunity from civil litigation to firms reporting suspicious behaviour by their clients. Fear of bad publicity is another great incentive. “You don't want to read in the newspapers that you were the medium for an al-Qaeda money transfer,” says one executive. Treasury figures show that banks filed 274,000 “suspicious activity reports” in 2002 (see chart), and another 71,600 in the first quarter of this year. Securities firms, even casinos, must also file such reports; others, including commodities traders, will soon have to do so too.

In essence, financial firms' chief duty is to get to know their customers better. This means keeping a close watch on who opens and uses accounts. The act sets minimum standards on the gathering and verification of customer information, for example from documents supplied by customers, visits to their premises and internet searches. Names must be checked against government watch-lists, a task complicated by multiple spelling of foreign names, such as those transliterated from Arabic. Granted, big banks have had anti-money-laundering procedures in place for years; and Gary DeWaal, general counsel of Fimat, a broking firm, remarks that some of Europe's laws are still tougher than America's. Nonetheless, says the compliance officer at a top New York firm, “This is a big sea-change for everyone.”



As a result, firms are seeking new methods of collecting and analysing customer data. Robert Iati of TowerGroup, a firm of consultants, points out that broking firms, for example, use information from a wide variety of sources, trading and payment systems, geographical locations and business units. Usually, they have organised this differently for each asset class. Now they have to demonstrate that certain common standards of surveillance are being met across the board. In trying to meet the Treasury's deadlines, many firms are turning to outside software suppliers, who in turn are working furiously to develop clever technologies to detect suspicious behaviour. Mr Iati estimates that broking firms alone will spend $700m between 2002 and 2005 on technology to comply with the Patriot Act.

Many smaller firms cannot afford expensive technological tools, and will rely on manual checks, perhaps raising the risk that some dirty money will go undetected. However, several experts believe that the greatest risks lie in middle-sized firms, which are too small to have all the fancy software, but too big to know all their customers personally.

As well as encouraging investment in technology, the Patriot Act has wrought changes in personnel. It requires financial firms to designate compliance officers, develop a training programme and create an independent audit process. These, along with the demands of the Sarbanes-Oxley Act, have produced a surge in demand for compliance specialists. Salaries are climbing. “These guys are in the driver's seat if they have the experience,” says Matt Weller of Brokerage Consultants, a recruiting firm. A check of online job postings revealed such companies as KPMG, Citigroup, Bank One and HSBC seeking Patriot Act expertise.

The increased clout of compliance officers is causing some tension between these people and sales staff, whose livelihoods depend on customers' opening and using accounts. Some time-sensitive business, for example in share trading, has been lost. Compliance staff say that some customers balked at the added information requests early on, but now realise background checks are likely wherever they open accounts. Checking long-standing customers rather than new ones, however, may be less easy to do without giving unnecessary offence. If existing customers cannot produce the required documentation, should their accounts be closed? One compliance consultant says it may be possible to monitor their accounts closely to avoid shutting them down.

Many awkward questions remain. Suppose a share-trading account is closed for lack of verification: who bears the risk if the price of the shares in the account fall? With an institutional customer, how should long-term contracts be unwound? What happens if customers supply documentation later? Those questions are open, compliance experts say, because Congress passed the Patriot Act in haste and set tight deadlines. Still, says Mr DeWaal, “Yeah, it's expensive, it's a nuisance, it costs a few extra people, but we don't want our companies to be involved in illegal activities.”

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About sponsorship

Economic forecasts

Jackson poll, 2003

Sep 4th 2003 | JACKSON HOLE
From The Economist print edition

A guide to the future

JACKSON HOLE, Wyoming, is a good place to spot bears, moose or buffalo. But a rarer beast can be observed in late August, when a herd of 100 or so central bankers and economists from around the world gather for the annual symposium of the Federal Reserve Bank of Kansas City (see article).

Two weeks ago, we revealed the remarkable forecasting record of America's top economists who attend this event. Our economics editor has conducted informal polls each year on the terrace (after the Western barbecue, for which one is invited to dress cowboy-style). In late 1999 our gang was confident that the stockmarket would not crash; in 2001 they ruled out an American recession; and last year they predicted that interest rates would not fall to 1%. In short, they have provided an excellent contrarian indicator. What might they get wrong this year?

Hearty thanks are due to the 200 readers who suggested questions for the 2003 poll. The most popular by far was: “Does America have a house-price bubble?” So we asked our terrace gang: “Will average house prices fall in the year to mid 2004?” All but one firmly answered “No”. We then made them work harder with a second poser: “Will the dollar fall to $1.25 against the euro at any time in the next 12 months”? When the question was put, one euro bought $1.10. Again with one exception, the answer was a resounding “No”.

Accordingly, your correspondent is betting that the dollar and house prices will fall over the next year. On the other hand, many of these economists probably read our article two weeks ago and therefore gave the opposite answer to what they really think. As one reader says, “it would be dumb for them to reply in any other way.”

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About sponsorship

Economics focus

Rocky mountain high

Sep 4th 2003
From The Economist print edition

Has low inflation made central bankers complacent?

TWO days of heavy rain failed to dampen the spirits of most of the central bankers and economists who met last week in the Rocky mountain resort of Jackson Hole, Wyoming, for the annual symposium of the Federal Reserve Bank of Kansas City, one of the biggest jamborees on their calendar. Now that America's economy is picking up strongly, participants might be forgiven for feeling light-headed, especially at over 6,000 feet. Even allowing for this, the mood was far too self-congratulatory.

This year's official theme was “Monetary Policy and Uncertainty”. When setting interest rates, central bankers face huge uncertainty about the future path of the economy and its potential rate of growth. Yet they are still 100% sure about one thing: the best way to deliver economic and financial stability is to focus on keeping inflation low. Central bankers' success in reducing inflation over the past decade therefore allows them to pat each other on the back. However, several of the papers* presented at this year's symposium questioned whether monetary policy really has been that good—or just lucky.

A paper by James Stock of Harvard University and Mark Watson of Princeton University challenged the consensus view that the decline in America's economic volatility over the past two decades—with longer expansions and shorter recessions—was largely the happy result of better monetary policy. They concluded that improved monetary policy accounted for less than 10% of the reduction in volatility. Structural changes, such as better inventory control, the growing share of services in the economy and financial-market deregulation, have also helped to smooth the economy. But as much as half of the decline in volatility, the authors argued, was due to smaller economic shocks, such as changes in the price of oil, and so could prove temporary.

Predictably, most of the Jackson Hole crowd insisted that monetary policy had played a much bigger role. Their hackles were further raised by another paper by Ken Rogoff, the director of research at the International Monetary Fund, who dared to suggest that central bankers could not even take all the credit for the fall in inflation over the past two decades. The job of central bankers has been made considerably easier, he argued, by increased competitiveness resulting from globalisation and deregulation. This has not only had a one-off effect in lowering prices, it has also made prices more flexible, helped to enhance central bank credibility, and so made it easier to tame inflation.

If all this were not bad enough, a third paper, by Claudio Borio and Bill White of the Bank for International Settlements, argued that central banks' focus on short-term inflation pressures did not guarantee financial and economic stability. Japan in the late 1980s and America in the late 1990s both experienced rapid growth in debt and asset prices, despite low inflation. When such financial imbalances unwind, there is a risk of a prolonged economic downturn as firms and households struggle to repair their balance sheets, which may push future inflation undesirably low. This suggests that monetary policy should lean against the build-up of imbalances even if current inflation is subdued.

Alan Greenspan, the Fed's chairman, repeated his usual defence that interest rates are too blunt a tool for this purpose: a mild monetary tightening might push share prices even higher if it is viewed as a sign that the central bank will guarantee non-inflationary sustainable growth, while a fierce tightening could trigger the recession that it was supposed to avert. He believes that it is safer to wait for a bubble to burst by itself and then cushion the after-effects by easing monetary policy if need be. This is exactly what the Fed has tried to do. The snag is that the longer a bubble is allowed to inflate, the bigger the build up of debt, and hence the greater the risk of a deeper downturn.

Them against US

Martin Feldstein, an economist at Harvard University who has been tipped as a potential successor to Mr Greenspan, referred at the meeting to the “Jackson Hole consensus” on monetary policy. It would be more accurate to call it the American consensus. On the question of monetary policy and asset prices, other central banks are starting to break ranks with the Fed.

Glenn Stevens, the deputy governor of the Reserve Bank of Australia, expressed sympathy with the view that monetary policy should sometimes respond to asset prices. This is a hot topic for Australia, where house prices and debt have been soaring, just as they have in Britain. Mervyn King, the governor of the Bank of England, has also argued that monetary policy may occasionally need to be tightened during a boom in asset prices and credit, even if inflation is low. An early rise in interest rates might cause a modest undershooting of the inflation target in the short run, but it could stave off a much bigger undershooting later if the boom turns to bust. Otmar Issing, a member of the executive board of the European Central Bank, has several times argued that one justification for the ECB's focus on money growth (and hence credit) as well as inflation is that this could help to prevent the emergence of serious financial imbalances.

The symposium ignored the related question of whether slashing interest rates was the right remedy for the American economy after its stockmarket bubble burst, or whether the Fed has merely created a home-mortgage bubble instead, and thus increased the risk of a sharper downturn later. American participants were more exercised about the apparent breakdown in communications between the Fed and the markets earlier this year, which caused big swings in bond yields. But getting communication right surely comes second to getting policy right. The Fed would be wise to listen to other central banks. When you are at the peak, there is only one way to go.

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* Available at www.kc.frb.org/publicat/sympos/2003/sym03prg.htm

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Forest fires

Heat and light

Sep 4th 2003
From The Economist print edition

AP

The technology of monitoring and predicting forest fires is getting better, and the PDA could become the fireman's latest weapon

SO FAR this year, some 2½m hectares (6m acres) of North American forest have been consumed by fire, and several fires are still blazing in the west of the continent. The United States' Forest Service reckons it will spend around $900m in 2003 on putting fires out, and the damage such fires have caused probably cost several times that figure. A long drought, high winds and extraordinarily high temperatures have also created tinder-box conditions in Europe, where fires have destroyed at least 500,000 hectares of forest and killed more than 30 people.

Accurate systems for monitoring fires would therefore have enormous value. If such systems could predict how a wildfire was likely to behave, that would be even better. It would enable those in charge to decide which areas should be evacuated, and how best to deploy fire-fighters and their equipment.

Such systems, fortunately, are starting to take shape. The ultimate objective is something that can take data from sensors near and far, process them through suitable computer models, and give those in charge of dealing with a fire a running commentary on how they might best go about it. The technology to do that is not all there yet. But it is getting closer.

Fires depend on fuel, in the form of the plants they burn. Among the tasks of Earth-observation satellites currently in orbit are to assess how combustible that fuel is by measuring its moisture content, and to provide regular updates of conditions in areas that might be at risk from fire. Three such satellites, *Landsat-7*, *EO-1* and *BIRD*, provide detailed but infrequent reports. Two others, *Terra* and *Aqua*, monitor conditions more often.

If a fire does break out, data from these satellites can be combined with information about the weather in order to estimate how fast the fire is likely to spread. At that point *Terra* and *Aqua* are used to monitor the fire. They are equipped with instruments sensitive to heat radiation, allowing researchers to map the extent and intensity of a fire and to estimate the altitude of the smoke plumes from it. These data are made available on the internet within two hours or so of a satellite passing over a fire.

This is a good start. But according to Julie Haggerty, of America's National Centre for Atmospheric Research (NCAR), in Boulder, Colorado, the resolution of *Terra* and *Aqua* is often too poor to characterise

fires in detail. Also, their orbits mean that each of them can look at any given spot on the Earth's surface only twice a day. A lot can happen in the intervening hours.

NASA, America's space agency, hopes to rectify these deficiencies by developing a “sensor web” system of fire-monitoring satellites that can communicate with each other. A satellite which detected a fire starting would signal another to take more detailed pictures of what was going on.

That would be an improvement. And yet satellites, though able to give the big picture, are too far away ever to be able to provide enough detail. One way around this, says Chris Justice, a fire researcher at the University of Maryland, would be to use pilotless aircraft instead. A suitable vehicle could hover over the same spot for an extended period. NASA, which is experimenting with such unmanned vehicles, hopes to place them in the sky for months at a time, to keep watch during the entire dry season.

Blazing a trail

Satellites and aircraft, of course, can only record what is going on. They cannot say what is likely to happen in the future. For that, computer models are needed.

FARSITE, a widely used model invented by Mark Finney of the Forest Service's Fire Sciences Laboratory in Missoula, Montana, takes into account a site's topography, the fuels available, and the weather, to show how a fire is likely to move across the countryside. More sophisticated models still under development, such as one created by Rodman Linn and his colleagues at the Los Alamos National Laboratory in New Mexico, can also simulate the interaction between a fire and the air around it. And Michael Bradley and his team at another national laboratory, Lawrence Livermore, have linked this model to a weather-forecasting package. Although scientists are still unable to model a “no-advance-notice” fire faster than it actually unfolds in nature, their models should soon be capable of predicting the behaviour of “prescribed burns”—deliberate scorchings started by forest managers to burn off undergrowth.

The inability of models to handle true wildfires is partly due to their inherent limitations. According to Dr Finney, however, a lack of good data presents a more serious problem than such technical limits. Better models require better data, but forest fires are not easy research subjects.

What is needed, according to Joshua Wurman, a researcher at NCAR, are detectors that can monitor a fire at close range. In July, he and his colleagues planted a lorry-mounted radar, dubbed “Doppler on Wheels”, about 3km from a forest fire that was burning near Montana's Glacier National Park. Mobile Doppler radars were originally developed for the study of hurricanes and tornadoes. Dr Wurman's version can map the three-dimensional structure of the smoke plume from a fire, and also the winds around that fire. If such data were plugged into an appropriate computer model, such as Dr Linn's, it would be possible to make a fair stab at predicting sudden shifts in wind caused by the fire itself. That would be important information, since such winds can drive the flames in new directions. Having shown that Doppler radar works on fires, Dr Wurman and his team are exploring ways of channelling the data from the radar into models fast enough for the predictions to be useful.

Integral trees

Although better monitoring technologies are changing the nature of fire analysis, Richard Wagoner, the project director of NCAR's Wildland Fire Research and Development Collaboratory, reckons that integrating their observations would make them still more effective. Mr Wagoner and his colleagues are trying to create a system that will swallow and digest disparate data from satellites, aircraft and ground-based sensors, and run them through suitable models. The results would be distributed, with the aid of wireless technology, to firemen carrying personal digital assistants at the site of a blaze. A prototype, says Mr Wagoner, will be available next year. It should help firemen to predict the behaviour of wildfires a few hours in advance.

Sadly, though, none of these models takes into account human factors. According to Jesús San-Miguel-Ayanz, who co-ordinates the European Forest Fire Information System, about 95% of fires in Europe are caused either intentionally or by careless human action. Many damaging fires this summer, he notes, were the result of arson. This complicates the task of predicting areas at risk, because researchers must consider not just vegetation maps, but unemployment statistics, agricultural practices and local habits. These are even harder to handle than moisture contents and vortex velocities. The science of fire-

prediction has some way to go yet.

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Archaeology

Shapely skulls

Sep 4th 2003
From The Economist print edition

Geometry sheds new light on the first Americans

Who am I, anyway?

HOW and when did people first get to America? This is one of the most controversial topics in archaeology. A new analysis of 33 skulls from Baja California, by Rolando González-José of the University of Barcelona, and his collaborators, supports a recent theory that the first Americans were descended from southern Asians rather than Siberians, as had earlier been supposed. The ancestors of these "paleoamericans" are thought to have lived in southern Asia at least 40,000 years ago. Their descendants arrived on the American continent around 15,000 years ago, after "coasting" for generations round the northern Pacific (they coasted south too, according to this theory, and were also the ancestors of Australia's aboriginal population). They thus arrived before the ancestors of modern Amerindians, who crossed the Bering Straits 12,000 years ago.

The paleoamericans appear to have died out. There is no sign of them today. The question is: when did this happen? Up to now, the assumption has been: a long time ago. But Dr González-José begs to differ. The skulls he examined, thought to be from the Pericú tribal group, who were hunter-gatherers living near the southern tip of the Baja peninsula in early historic times, are a mere 2,000 years old. Yet they seem to be paleoamerican.

Although the skulls, stored at the National Museum of Anthropology in Mexico City and at the Regional Anthropological Museum of La Paz, were discovered over the course of the past three decades, Dr González-José's analysis, reported in this week's *Nature*, is the first to examine their geometry.

The researchers used two methods to analyse the skulls. The first employed 24 of the variables enumerated by William Howells, an archaeologist at Harvard who pioneered the statistical analysis of skulls in the 1970s. These variables include the length of the skull, the length of the face, and the width of the eye sockets. By comparing these measurements with those of known paleoamerican skulls, and of other populations, ancient and modern, Dr González-José inferred that the Pericú skulls are most similar to those of paleoamericans. The results of this analysis agreed with those from the more cutting-edge technique of "geometric morphometrics", a computerised curve-fitting technique based on 14 points on the skull. Both methods link the paleoamericans to southern Asians and Pacific islanders, and likewise link modern-day Amerindians to Siberians.

Fortunately, by working in Mexico, Dr González-José's team did not meet with the difficulties currently plaguing archaeologists in the United States. The Native American Graves Protection and Repatriation Act, passed in 1990, has made it hard to study ancient skeletons found within the United States. It gives control of such discoveries to Amerindian tribes living in the area in which they are made, on the assumption that such old bones may have belonged to ancestors of people in these tribes. Only if the tribes agree are scientists allowed to study them.

Unfortunately, the law has been abused to stop the study of skeletons so old (and so physically unlike local inhabitants) that they could not possibly be ancestral to modern local people. Most famously, this has resulted in a seven-year court battle over Kennewick Man, a 9,400-year-old skeleton that has Caucasian rather than Amerindian features, and was found in Washington state. Though the scientists prevailed in August last year, the American government, which is supporting the claims of local tribes, has filed an appeal. The latest hearings, due on September 10th, may decide whether Kennewick Man will be allowed to shed any light on the debate that Dr González-José has just so elegantly illuminated.

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Engine management

All change

Sep 4th 2003 | SãO PAULO
From The Economist print edition

A Brazilian car engine that can run happily on different fuels

IMAGINE pulling into the forecourt of the nearest garage and filling up with whatever happens to be the cheapest fuel that day, be it petrol, ethanol (the active ingredient of booze) or any mixture of the two. Brazilian motorists now can, thanks to an innovation put on the market a few weeks ago. It was developed by engineers working for Delphi, one of the world's largest vehicle-component makers, at the firm's technological centre near São Paulo.

Many people dream of replacing petrol with ethanol. Because ethanol is made from plants, and plants draw their carbon from the atmosphere, burning it would eliminate a source of greenhouse gases and help to stem global warming. But the optimum conditions for burning petrol and ethanol are different, so a well-tuned engine needs to know what fuel it is being fed in order to adjust itself appropriately.

Petrol burns best with an air-to-fuel ratio of around 14:1. This means that, for every kilogram of fuel burnt, all of the oxygen in 14 kilograms of air will be consumed. Ethanol, though, requires an air- to-fuel ratio of 9:1. Delphi's technology works by “sniffing” the amount of oxygen in a car's exhaust. If too much or too little of the gas is sensed, it indicates that the fuel is burning in a less-than-optimal way, and thus that the air-to-fuel ratio is wrong. A signal is then sent to the engine to tweak the ratio appropriately. This system also makes adjustments to compensate for the outside temperature. Optimal burning requires more fuel in the mixture when the temperature is lower. Sniffing the exhaust means that this happens automatically.

Two other adjustments are also necessary. Ethanol needs more compression in an engine than petrol does. Roberto Stein, the chief engineer at Delphi's technological centre, says his team compromised by using a level of compression between the ideals for ethanol and petrol. And ethanol is more corrosive than petrol. So the engineers had to alter the design of the fuel pump, gaskets and piston rings. The result is a 1.8 litre engine that is now being fitted to Brazilian-made General Motors cars.

Brazil has a history of promoting ethanol as a fuel. In the 1980s, the government encouraged it, in a misguided attempt to subsidise sugar farmers (since the main source of ethanol is fermented sugar) and cut oil imports. At the height of this policy, almost 80% of cars produced in Brazil ran on pure ethanol.

That proved too costly to sustain, and the subsidies were eventually reduced. But the government is still keen on ethanol, and motor fuel still contains it in varying amounts. So drivers of cars whose engines can switch efficiently between mixtures will be able to shop around.

Countries with less eccentric histories may also benefit. Maize-based E85 fuel (an 85% ethanol/petrol mixture) is already on sale in parts of America. In July, the National Ethanol Vehicle Coalition launched a project to promote greater use of E85 in Wisconsin, Missouri, Colorado, Minnesota, Michigan and Illinois. The coalition estimates that the market for E85 is now about 40m litres a year. Better fermentation techniques, based on biotechnology, may multiply that many times. And that is something not to be sniffed at.

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Junk DNA

An ancient helper

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From The Economist print edition

Some “junk” DNA may have a function

IT IS a cliché of genetics that most of the genome is junk. The genes themselves constitute 2-3% of the DNA in a human cell's nucleus. Some of the rest regulates the genes, but most consists of stuff that is apparently useless or, worse, parasitic. Among the latter are the remnants of so-called retrotransposons.

A retrotransposon is a group of “freeliving” genes which reproduces by hiding in the chromosomes of its hosts, causing that host to copy it at the same time that it copies its own genes. Normally, it breaks out of its host chromosome after a time, to find pastures new. Sometimes, however, a retrotransposon forgets how to have a life of its own, and is just passed down the generations along with the host's genes.

Why such “endogenous” retrotransposons persist is a mystery. Natural selection would be expected to get rid of them. However, in a paper in *Current Biology*, Clare Lynch and Michael Tristem, of Imperial College, London, suggest an answer. They have been studying a retrotransposon that lost its independence to an early mammal some 70m years ago. It is now found in that mammal's descendants, including humans, sheep, rats and mice. Dr Lynch and Dr Tristem think that its persistence, and the fact that its genes do not seem to have been damaged by random mutations, are due to the fact that it was “turned” at some point in the past, and is now assisting the hosts. In other words, it is no longer a parasite.

Retrotransposons are closely related to retroviruses, the most notorious of which is HIV, the agent that causes AIDS. One feature of some retroviruses is that infection by one sort can inhibit (by an unknown mechanism) the activities of others. Dr Lynch and Dr Tristem speculate that this retrotransposon's genes may have survived in mammals because the proteins they produce likewise protect cells from the activities of other retrotransposons. The poacher, in other words, has been acting as a gamekeeper since dinosaurs walked the Earth.

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About sponsorship

Hector Berlioz

A majestic canon

Sep 4th 2003 | HEREFORD AND LONDON
From The Economist print edition

Bridgeman

Born in 1803, Berlioz has never been as admired in his own country as he is across the English Channel. Which is odd, given the majesty of his music

FOR a hundred years or so after his death the musical consensus in Europe was that Hector Berlioz was a crazy man who defied all the rules of composition. But the Frenchman's music obeyed its own rules and sounded like no one else's. The Paris opera was confused by the complexity of the orchestration and frightened by the scale of Berlioz's music. French audiences were largely indifferent or contemptuous. He died a prophet without honour in 1869, a lonely, near-tragic figure, embittered at the rejection by his countrymen.

French audiences have for the most part never let go of their instinctive suspicion. In the rest of the musical world Berlioz's stature has swelled, especially in Britain, where the 200th anniversary of his birth has been liberally celebrated at the BBC Proms at the Albert Hall and the Three Choirs Festival in Hereford Cathedral.

The English have always had a taste for Berlioz's exhilarating musical romanticism. He was lionised when he visited London. Sir Charles Hallé, who founded the Hallé orchestra, was an admirer; the flamboyant Sir Thomas Beecham included a Berlioz piece in his first public concert in 1899 and another in one of his last in 1960. Yet Berlioz remained a secondary figure, except among aficionados, until a great revival began, orchestrated principally by David Cairns, author of a magnificent biography, and Sir Colin Davis, the leading interpreter of the music.

“Les Troyens”, portrayed above in an 1891 painting by Henri Fantin-Latour, is Berlioz's most monumental operatic work. On August 25th Sir Colin and the London Symphony Orchestra gave what is normally a two-day work a memorable performance in one absorbing Prom that started at 3pm and ended more than seven hours later. Sir Colin and the LSO—the Real Madrid among Berlioz bands—know the piece intimately enough to transform the score into an enthralling drama. “The sky darkens,” says the libretto, and the languor of the strings was punctuated by urgent interruptions from the flutes and clarinets. Foreboding sounded on the drums. The lyrical entry of the horn was backed by greater urgency among the strings. “It becomes a tempest”, and the trumpets and trombones sounded ferociously from high up in the Albert Hall's grand tier boxes on each side of the orchestral stage. When the two horns answered each other's plangent calls from opposite sides of the vast auditorium the effect was electrifying.

There were over 100 orchestral musicians augmented by a choir of 175 voices, and the volume seemed to distort the senses. The audience was utterly rapt and so were the critics; one spoke of a “totally compelling experience” and awarded the concert five stars out of five. Berlioz himself would have loved the subtlety, judgment and commitment of the musicians.

“The brilliance of the drama and the scoring make Berlioz sound even better when you hear him live,” said Andrew Nethsingha, who had earlier conducted a performance of “Les nuits d'été”, a melancholy cycle of love poems in Hereford Cathedral. The Three Choirs Festival, a quintessentially English musical occasion, has nurtured the music of English composers like Edward Elgar for no less than 276 years. But the festival is not exclusive; Berlioz was first performed there in 1906 and he has had a toehold in the repertory ever since.

Great choral works like the “La grande messe des morts” are popular because they give the chorus plenty of work. This year's splendid account of “L'enfance du Christ”, a delightful piece about the flight into Egypt, was judged by participants not to provide quite enough singing for the chorus, though the audience of 1,200—crammed into every cranny of the cathedral—liked it well, and the subject matter must have pleased the blue-cassocked priests; more so perhaps than the blatant if unfulfilled eroticism of “Les nuits d'été”.

There was no shortage of grey hair in Hereford and London, suggesting that a taste for Berlioz might be a mature one. These audiences have been present at the transition of Berlioz from outsider to central figure in the musical canon. But why in England? Berlioz himself was a slavish admirer of Shakespeare. He fell in love with Harriet Smithson, a mesmeric Ophelia whom he saw act in Paris, and courted her obsessively until she married him. (Her subsequent alcoholism was another facet of his tragedy.) “Romeo and Juliet”, “Much Ado About Nothing” (as “Béatrice et Bénédick”) and the death of Ophelia all inspired operas or orchestral suites. But there must be more to it than that.

Nicholas Kenyon, director of the BBC Proms, suggests that it is a mixture of eccentricity and tolerance. He thinks the strength of the Austro-German symphonic tradition—exemplified by Beethoven, Brahms and Mahler—makes it harder for continentals to appreciate Berlioz. “The residual open-mindedness of the British audience is one reason why Berlioz became established here 30 years ago or so.”

The English rather like to believe that Berlioz is effectively banned in France. It is not so. The first complete performance of “Les Troyens” in Paris took place in 1921 and there have been intermittent performances since. Plans to move Berlioz's remains to the Panthéon are discussed from time to time; the latest proposal was shelved earlier this year. (Opponents argued he was not sufficiently Republican.) “Les Troyens” is to be performed at the Théatre du Châtelet in October, but the ardour that inspired the Three Choirs and six more Berlioz concerts at the Proms is still not to be found in France.

Will the French ever learn to love Hector Berlioz? Mr Kenyon, clearly, is not convinced, venturing no more than: “They may, in the end.”

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Weapons of mass destruction

Be afraid

Sep 4th 2003
From The Economist print edition

FIRST, place a smallish lump of highly enriched uranium (or plutonium, if you have it to hand) at the top of a cylindrical barrel. Then place another, larger lump at the other end. Throw in a high-explosive charge, and you have your nuclear bomb. You may accidentally irradiate yourself, but if you are a terrorist fanatic bent on destroying western civilisation, that is unlikely to worry you.

Happily, things aren't quite that simple: getting hold of the materials, for instance, can be tricky. But biological weapons (cheap and easy) and chemical ones (very easy) are much less trouble. So is a radioactive "dirty" bomb, though as Frank Barnaby points out in this timely crib of WMD for beginners, a dirty bomb is really a weapon of mass disruption, rather than destruction. As the pre-war Iraq intelligence unravels, the WMD threat has come to be regarded by some as more rhetorical than real. Mr Barnaby, certainly no admirer of George Bush's foreign policy, encourages the sceptics to think again.

He writes, in a scientist's dispassionate style, about the symptoms and injuries such weapons can inflict, about the criteria terrorists would apply in selecting their method and his own observations of a nuclear test in South Australia in 1953. There is probably no way to explain nuclear fusion and fission enjoyably to lay readers, and Mr Barnaby, a nuclear physicist by training, occasionally leaves them behind. But he is more engaging on the history of massively destructive weapons, including their primitive use in the American revolutionary and civil wars.

"How to Build a Nuclear Bomb" also offers a useful typology of terrorism and explains the way in which the rise of religious terror, combined with WMD proliferation, has changed security calculations. It suggests some sensible precautions—better protection of dangerous materials and improved co-operation between western intelligence agencies—and closes by sketching the cyber and genetic warfares that might emerge as the century's new and greatest risks.

Mr Barnaby's book has the faults and virtues of an overview. It is broad rather than deep, staccato in style and often derivative. But its borrowed passages are among its most powerful—none more so than the reflections of the pilot who bombed Hiroshima in 1945, here juxtaposed with the testimony of survivors: "The whole sky is lit up in the prettiest blues and pinks I've ever seen in my life. It was just great."

How to Build a Nuclear Bomb and Other Weapons of Mass Destruction.
By Frank Barnaby.
Granta Books; 200 pages; £9.99

How to Build a Nuclear Bomb and Other Weapons of Mass Destruction
By Frank Barnaby

Granta Books; 200 pages; £9.99

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About sponsorship

Drugs and Latin America

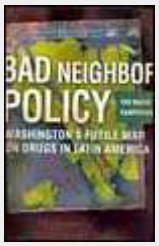
High in the Andes

Sep 4th 2003
From The Economist print edition

MORE than 30 years ago, President Richard Nixon declared war on the use of illegal drugs in the United States, and their supply from abroad, especially from Latin America. Over the intervening decades that war has become an increasingly serious and costly one, as Ted Galen Carpenter succinctly shows in a timely book. At home, Americans have seen their civil liberties eroded in its name, while the federal government now spends some $11.7 billion a year fighting drugs. Abroad, the drug warriors have bullied and bribed Latin American governments into sullen co-operation. Under Plan Colombia, the Americans are now deeply involved in that country's internal conflicts, spraying coca fields and training army battalions. And yet the flow of drugs reaching the United States is undiminished. While casual cocaine use has declined, heroin consumption has increased.

This adds up to a “colossal failure”, argues Mr Carpenter, who works at the Cato Institute, a libertarian group in Washington, DC. That failure is inevitable, in his view. As long as drugs are demanded, the only effect of making them illegal is to drive up their price, providing an unbeatable economic incentive for their production. It is time for the United States to abandon its “experiment with drug prohibition” which began with the Harrison Act of 1914.

Bad Neighbour Policy: Washington's Futile War on Drugs in Latin America
By Ted Galen Carpenter



Palgrave Macmillan; 288 pages; $24.95 and £19.99

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Mr Carpenter's conclusion is one that many students of the drug war, including this newspaper, have long endorsed. The problem is that most Americans do not. Several European countries, and Canada, have recently shifted away from a penal approach to drugs, and towards one of decriminalisation and “harm reduction”. But none has contemplated legalising cocaine, the use of which is soaring in Europe. Beyond a timid movement to allow the medical use of marijuana, America remains tightly wedded to prohibition.

Mr Carpenter is right, too, that the Latin American countries which are the source of drugs, or through which they are trafficked, pay a disproportionate share of the costs of failed prohibition. More's the pity, then, that he shows no sign of having visited any of them in researching his book—or even of setting foot outside his office in Washington.

This gives his book some disfiguring weaknesses. The central one is that his review of three decades of American policy fails to distinguish sufficiently between the cost to Latin America of the drug war, on the one hand, and of the illegal drug industry itself on the other. The drug war has indeed inflicted obvious damage; America's support for Peru's disgraced spy chief, Vladimiro Montesinos, is one unedifying example.

But the drug industry has itself wreaked havoc in the Andean countries. That is because prohibition makes drug production highly lucrative. This gives the drug industry enormous economic and military power, which it exercises through corruption and violence to undermine already weak democratic states. Colombia's guerrillas, for example, would almost certainly have made peace at least a decade ago had drug money not given them and their paramilitary opponents a new, extended, lease of life. As a result, Colombia's governments have had little choice but to seek American military aid—and have every right to it as long as American (and European) drug consumers are financing the assault on democracy, however unwittingly.

In other words, unless and until drugs are legalised, Latin American governments have no choice but to try and tackle the monster engendered by prohibition. But such policy dilemmas are too subtle for Mr Carpenter's polemic. He leaves ungrasped, too, the many nettles that spring from legalisation, ranging from who might produce the drugs to whether consumption could be restrained. In a different way, he is

as out of touch with reality as are the drug warriors. That is a shame, for his main argument is an intelligent one.

Bad Neighbour Policy: Washington's Futile War on Drugs in Latin America.
By Ted Galen Carpenter.
Palgrave Macmillan; 288 pages; $24.95 and £19.99

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Literary biography

Mr Grumpy

Sep 4th 2003
From The Economist print edition

TOBIAS SMOLLETT, an 18th-century Scottish novelist, wrote only three great books before he died in 1771 at the age of 50—a couple of fairly brief novels called “The Adventures of Roderick Random” (1748) and “The Expedition of Humphry Clinker” (1771) preceded by a marvellously bad-tempered, uproariously xenophobic collection of travellers' tales called “Travels Through France and Italy” (1766).

Smollett spent the rest of his life in a short and exhausting round of non-stop, Grub Street drudgery—reviewing, editing, polemicising and forever, it seems, engaged in the wearisome synthesising of other people's works. He was, in short, an early example of the full-time professional writer, and he suffered the familiar consequences of belonging to that dubious fraternity of hacks down the ages: extreme prickliness, endless cash crises and deep-rooted paranoia.

Tobias Smollett
By Jeremy Lewis

Jonathan Cape; 340 pages; £20

Buy it at
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Although Smollett would eventually win the admiration of Sir Walter Scott and George Orwell, he has in recent years been largely overlooked by the academic community and the general reader alike. The last biography was published in 1949, and it was written by an American scholar called Lewis Knapp for other scholars. It was strong, if not fanatical, on detail, but short on context.

Jeremy Lewis's new study, by contrast, is a breezy, old-fashioned, beautifully written, life-and-letters kind of a book, narrated in an engagingly relaxed and good-humoured way. It discusses the man and his work in the context of the Scottish society in which he was born, briefly prospered and greatly suffered. It doesn't pretend to be exhaustive. Mr Lewis hasn't even read everything that Smollett ever wrote—which is a surprisingly refreshing admission from a biographer. Instead, it quotes extensively from Smollett's own words, a useful addition because so much of what he wrote is out of print. In short, it is not a scholarly book, but an admirably readable one.

Mr Lewis loves the 18th century, its alluring mixture of elegance and coarseness, brutishness and refinement, crudeness and sophistication, and there is no one better than Tobias Smollett to embody it. Smollett himself was born in Dumbarton, but he lived most of his life in London, where he suffered from the rampant Scotophobia of the age. Personal spats and violent literary feuds were the order of the day, and few people were as good as the proud and irascible Smollett at wielding the paper sword.

His fictional characters are somewhat two-dimensional when compared with the great novelists who would follow in the 19th century—Smollett had no time for inwardness or the riches of ambiguity—but no one can match him for his broad, uproarious and often lavatorial humour, or the speed and dexterity with which he could bowl a plot along.

Many readers of 18th-century English literature would judge his contemporary, the Somerset-born Henry Fielding, to be the greater novelist, but Smollett possesses a rare gift of swift and incisive caricature that makes Fielding look, by comparison, like a moralising plodder. And in Jeremy Lewis, a man who, like Smollett himself, has spent his life making his way in the world of Grub Street by editing, reviewing, and writing the odd book here and there, Smollett has found a truly sympathetic champion.

Tobias Smollett.
By Jeremy Lewis.
Jonathan Cape; 340 pages; £20

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Italian food

Pappa buona

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From The Economist print edition

With such a history, it is no wonder that food is one of Italy's greatest exports

THE myth of La Cuccagna, a utopian land of abundance, has endured in Italy from the Middle Ages to the present, both in literature and in popular culture. In this wondrous land, a mountain of grated cheese dominates the landscape, topped by a giant, ever-boiling saucepan full of gnocchi that, when cooked, is destined to feed the entire world.

It is interesting that this earthy, homegrown gastronomic fantasy should prove so persistent in contrast to those in other countries, which seem always to consist of strange and exotic dishes from far-off places. Italy is proud of its food, and rightly so; its culinary legacy to the world is without comparison.

Alberto Capatti and Massimo Montanari comprehensively chronicle the evolution of this superb cuisine and the cultural factors that have influenced its changes. The ennoblement of garlic, the arrival of the tomato, a grocer named Appert and the fascist regime: each had their own particular impact on Italy's culinary habits. “Italian Cuisine: a Cultural History” is an exhaustive and detailed investigation and will prove to be a valuable textbook for many foodies.

William Black's “Al Dente” will delight both the *buongustaio* and the kitchen-shy alike. This vibrant and witty account of his gastronomic travels through Italy combines mouth-watering descriptions of dishes and foodstuffs, simple authentic recipes and a travelogue that is as richly observed as it is fascinating.

Mr Black stops at nothing in his hands-on exploration of Italy and its food. He tries *casu marzu*, a pecorino cheese that is given a distinctive tang by the digestive processes of a special kind of fly larva; he observes the *mattanza*, a visceral slaughtering of tuna, and recalls watching a fisherman give a near-literal kiss of death to an octopus. And that's just his account of Sardinia. Maggoty cheese and donkey stew may not be to everyone's taste, but there are enough recipes and culinary tales to get even the most delicate of stomachs to rumble.

Perhaps if Mark Rotella had enlisted Mr Black's help he might have actually had some adventures in Calabria other than the eponymous episode of the stolen figs (which, it turns out, he didn't know he was stealing). Mr Rotella is a third-generation Italian-American who returned to his grandfather's village in search of his roots. He also explored the region extensively, with a travelling postcard salesman as his guide. Surely this would provide ample fuel for a fun and interesting trip and resulting piece of travel writing? But the hapless Mr Rotella rarely lets himself get fully involved in any activity or relationship and seems reluctant to risk offence by professing an opinion about anyone or anything. As a result, “Stolen Figs” is a bland narrative that fails to engage any of the emotions, although, to be fair, for those of Calabrese descent looking for an accessible and geographically comprehensive guide to their homeland, this book might be useful.

Italian Cuisine: A Cultural History.
By Alberto Capatti and Massimo Montanari

Italian Cuisine: A Cultural History
By Alberto Capatti and Massimo Montanari

Columbia University Press; 400 pages; $35 and £24.50

Buy it at
Amazon.com
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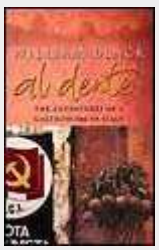
Al Dente: The Adventures of a Gastronome in Italy
By William Black



Bantam Press; 352 pages; $19.95 and £12.99

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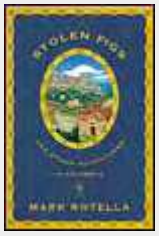
Stolen Figs: And Other Adventures in Calabria
By Mark Rotella



Columbia University Press; 400 pages; $35 and £24.50

North Point Press; 310 pages; $25

Buy it at
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New fiction

Force of nature

Sep 4th 2003
From The Economist print edition

Pompeii
By Robert Harris

Hutchinson; 356 pages; £17.99

Buy it at
Amazon.com
Amazon.co.uk

FOLLOWING his three bestselling novels, “Fatherland”, “Enigma” and “Archangel”, Robert Harris has moved away from the familiar settings of mid-20th century Europe. “Pompeii” is set mainly during the days preceding the eruption of Vesuvius. It tells the story of Marcus Attilius, an engineer in charge of the Aqua Augusta, a vast aqueduct that feeds the towns around the Bay of Naples. Attilius has to cope with a sudden and mysterious lack of water, while trying to ignore the unexplained disappearance of his predecessor.

As if this were not enough to keep him busy, Attilius also manages to incur the wrath of Ampliatus, a wealthy ex-slave. In due course this error brings our hero to a point where, if he manages to survive the sulphurous oxide and violent sandstorms of Vesuvius, he will almost certainly be murdered. The novel follows Attilius almost hour by hour as he struggles to decide whether a vengeful God, cruel fate or ordinary bad luck is to blame for his troubles.

Despite the scene shift, Mr Harris sticks to the “Enigma” formula of placing fictional characters (with the exception of the odd historical figure) into an authentic setting. Occasionally, the plethora of minor characters becomes a little wearing, and Attilius's recollection of the deaths of his wife and child seems unnecessarily gruesome. But the heroes are made to seem real enough, and the relationship between Attilius and Corelia is especially poignant.

As a writer, Mr Harris is as thought-provoking as he is entertaining. Thanks to his minute attention to detail, his handling of the eruption (which his readers know is coming though his characters don't) and his competence as a historian, the novel works both as an engaging thriller and as a believable portrayal of life in ancient Rome, with no small lesson for our own times.

Pompeii.
By Robert Harris.
Hutchinson; 356 pages; £17.99

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Mutiny on the Bounty

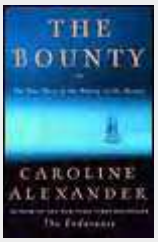
A motley crew

Sep 4th 2003
From The Economist print edition

IN THIS meticulously researched work, Caroline Alexander, who gained renown for her 1998 bestseller, “The Endurance”, brings a calm and steady eye to a messy and much-told story. Using a wealth of sources—admiralty papers, personal letters, ships' logs, wills and diaries—she brings alive in colourful detail a saga as broad and deep as the Pacific Ocean itself.

Under the command of William Bligh, who had served as sailing master on James Cook's final expedition, the *Bounty*, a small cutter with a crew of 46, left England in December 1787 on a voyage to transport breadfruit trees from Tahiti to the West Indies. Ms Alexander cleverly conjures up life aboard the storm-battered ship, where men toiled hard in cramped, unhygienic conditions, existing on unpalatable food washed down with copious amounts of alcohol. Steeping her narrative in the language of the sailors onboard ship, the crew of the *Bounty* fairly dance across the pages; the conscientious Bligh with his exceptional navigational abilities; Thomas Huggan, the corpulent and alcoholic ship's surgeon; Peter Heywood, a gentlemanly midshipman whose powerful family connections would later cause Bligh so many problems, and Fletcher Christian, the tormented master's mate “full of professional Ambition and of Hope” who would seize command of the *Bounty* and cast Bligh and 18 loyalist crew adrift in an open boat.

The Bounty: The True Story of the Mutiny on the Bounty
By Caroline Alexander



Viking; 496 pages; $27.95

Buy it at
Amazon.com
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Back in England, Bligh became a hero, was swiftly promoted and given command of a second breadfruit expedition. Returning from this voyage, however, he found that the tide of opinion had turned against him, thanks, in part, to a plot by two powerful families to discredit his name. Over the following decades, Bligh's naval background and its dry adherence to duty would prove no match for the dashing romantic hero, Fletcher Christian. But the central question about what led Christian to rebel still remains. Bligh may have been irascible, but his crew owed their extraordinary survival on the 48-day voyage in an open boat with no charts, little food and basic navigation equipment to his sea-faring gifts, and that would have earned any sailor's respect. While Ms Alexander does not lay bare Christian's motives, her painstaking descriptions, the intricate plot and rollicking cast of characters make this a story to be savoured.

The Bounty: The True Story of the Mutiny on the Bounty.
By Caroline Alexander.
Viking; 496 pages; $27.95

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About sponsorship

Pierre Poujade

Sep 4th 2003
From The Economist print edition

EPA

Pierre Poujade, French populist politician, died on August 27th, aged 82

IF THE direct impact of Pierre Poujade on French politics was brief, and it was, the discontent to which he gave expression, and also his name, has proved enduring. Mr Poujade was a figure of significance in France for no more than three or four years in the mid-1950s. Poujadism, however, lives on. Anti-tax, anti-Semitic and anti-establishment, its blend of gruff nationalism, direct action and arcadian nostalgia can be seen in the campaigns of Jean-Marie Le Pen, the leader of France's xenophobic National Front, and José Bové, the leader of its anti-globalisation movement.

Mr Poujade came from a poor family in the Lot, in south-west France. Obliged to leave school early by the death of his father, an architect, he trained as a typesetter, PT instructor, docker, grape-picker and road-mender, never settling at anything. His interest in politics was more constant, if not consistent, and he became a supporter of such far-right outfits as Jacques Doriot's proto-fascist French Popular Party and, after the fall of France to the Germans, Marshal Philippe Pétain's youth movement, the Companions of France. He then turned against Pétain's Vichy regime, fled to Spain and in due course Algeria. From there he made his way to Britain and joined the Royal Air Force.

After the war, Mr Poujade went back to Saint-Céré, the town where he had grown up, bought a stationer's shop and was elected to the town council. Saint-Céré was typical of many small French towns at the time: as industry had contracted, shopkeeping had expanded, but without either population or purchasing-power to match. Shopkeepers survived on low turnover by imposing high margins and evading as many taxes as they could. When a posse of tax inspectors descended on the town in the summer of 1953, the locals were in no mood to co-operate: Mr Poujade put himself at their head and sent the "*Gestapo fiscale*" packing. Thus was born Mr Poujade's Union for the Defence of Tradesmen and Artisans, an organisation that by 1955 had gathered over 500,000 members in the name of "*fraternité française*".

The circumstances were propitious for a party of right-wing protest. While economic change was bringing new prosperity to some people in France, it was bringing only insecurity to others—and not just shopkeepers. Peasants, workmen and students were among those who believed that a whole way of life, as well their own livelihoods, was threatened by the march of modernisation. Their concerns were not allayed by the people running the country. France's Fourth Republic saw a series of weak, short-lived

governments, whose rule was generally marked by crisis and compromise, and whose leaders were often regarded as corrupt and effete. In Mr Poujade's eyes, no one personified this feebleness better than Pierre Mendès-France, the Jewish, milk-drinking prime minister of 1954-55. It was against his government that Mr Poujade, having organised a rally of 100,000 malcontents in Paris in January 1955, threatened even bigger protests and a general withholding of taxes to boot. The government yielded.

Yet its concessions, mainly directed at shopkeepers, were not enough to assuage the beast. Mr Poujade's party went on to win nearly 12% of the vote in the 1956 election, and 52 seats in parliament (one of the new members was a young Mr Le Pen). Mr Poujade's power seemed formidable.

It was not, or at least he did little with it. The curse of many extremist parties—bickering, indiscipline and lack of experience—was one reason for the failure. Another was more personal to Mr Poujade: he was a man of protest, not policy. Unlike other politicians—the grocer's daughter Margaret Thatcher, for instance—who have campaigned against vested interests, national decline and the abandonment of the traditional values of ordinary people, Mr Poujade had no serious remedies to offer. He could delay change (France got its first supermarket only in 1957), but his proposals for action were few and mostly impractical. The most notable was to counter the influence of the National Assembly by reconvening a revamped Estates General, which had last met in 1789 as a gathering of nobles, urban bourgeois and clergy.

An eternal topinambour

Mr Poujade had an eye for the main chance. He saw that he had to broaden his list of grievances from taxation if he was to become a national figure; thus he took up such issues as free trade, the retreat from Indochina and the struggle to keep Algeria French. He also had a gift for colourful, often coarse, phrases: he would take the side, he said, of "*des petits, des matraqués, des spoliés, des laminés, des humiliés*" (the little man, the downtrodden, the trashed, the ripped off, the humiliated) against "the vampire state". He could play an audience brilliantly, pandering to every prejudice, and his followers could disrupt meetings. But, all in all, he was neither a thinker nor a strategist, merely a demagogue. He ended his days promoting Jerusalem artichokes as an alternative to fossil fuels.

As a result, Mr Poujade's –ism will not join that of Charles de Gaulle as the term for a recognisable political philosophy. It will be more like that of Nicolas Chauvin, whose bellicose patriotism and devotion to Napoleon are now synonymous with contempt for foreigners. Perhaps Mr Bové will name an artichoke after him.

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Overview

Sep 4th 2003
From The Economist print edition

America's economy grew faster in the second quarter than preliminary estimates had suggested: GDP growth was revised up from 2.4% to 3.1% at an annual rate. Retail sales grew by a higher than forecast 6.3% in the 12 months to July. There was more good news from manufacturers: the Institute for Supply Management's index of manufacturing activity rose briskly for the second straight month, from 51.8 in July to 54.7 in August.

Consumer-price inflation in the **euro area** ran at 2.1% in the year to August. Producer prices, although unchanged from June, rose by 1.3% in the year to July; they fell by 0.3% in the year to the previous July. Euro-area unemployment stayed at a 42-month high of 8.9% in July for the second straight month. Manufacturing activity, according to Reuters' purchasing-managers index, improved slightly in August.

Unemployment in **Japan** held steady at 5.3% in July. Industrial production rose in July by 0.5% from June, but was stagnant in the year to July. Deflation continued: consumer prices fell by 0.2% in the year to July.

Australia's GDP grew by 0.1% in the second quarter and by a stronger than expected 2.0% in the year to the second quarter.

Canada's GDP contracted by 0.1% in the second quarter and grew by 1.6% in the year to the second quarter.

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Output, demand and jobs

Sep 4th 2003
From The Economist print edition

% change on year ago

	GDP latest		GDP qtr*	The Economist poll GDP forecasts 2003	2004	Industrial production latest		Retail sales (volume) latest		Unemployment % rate latest		Unemployment % rate year ago
Australia	+ 2.0	Q2	+ 0.5	+ 2.8	+ 3.5	nil	Q1	+ 3.6	Q2	6.2	Jul	6.2
Austria	+ 1.0	Q1	+ 0.7	+ 0.5	+ 1.4	– 1.9	Dec	– 0.5	Jun	4.5	Jul	4.3
Belgium	+ 0.8	Q2	– 0.4	+ 0.7	+ 1.6	– 5.9	Jun	– 1.7	Jun	13.3	Aug†	12.0
Britain	+ 1.8	Q2	+ 1.3	+ 1.8	+ 2.4	+ 2.2	Jun	+ 4.4	Jul	5.0	Jul††	5.1
Canada	+ 1.6	Q2	– 0.3	+ 2.2	+ 3.0	+ 0.5	Jun	+ 3.2	May	7.8	Jul	7.6
Denmark	– 0.8	Q2	– 1.8	+ 1.1	+ 2.1	– 0.5	Jun	+ 2.2	Jun	6.0	Jul	5.1
France	nil	Q2	– 1.3	+ 0.7	+ 1.9	– 0.9	Jun	– 2.0	May	9.6	Jul	9.1
Germany	– 0.2	Q2	– 0.2	nil	+ 1.3	– 2.1	Jun	– 2.4	Jul‡	10.6	Aug§	9.8
Italy	+ 0.3	Q2	– 0.4	+ 0.5	+ 1.6	– 1.7	Jun	– 2.1	Jun	8.7	Apr	9.0
Japan	+ 2.1	Q2	+ 2.3	+ 1.5	+ 1.3	nil	Jul	– 1.8	Jun	5.3	Jul	5.4
Netherlands	– 0.9	Q2	– 2.1	– 0.2	+ 1.4	– 3.2	Jun	– 1.1	Apr	5.4	Jul**	4.1
Spain	+ 2.3	Q2	+ 2.7	+ 1.9	+ 2.6	+ 4.5	Jun	+ 3.2	Jun	11.4	Jul	11.3
Sweden	+ 1.3	Q2	+ 1.2	+ 1.5	+ 2.2	+ 2.4	Jun	+ 5.0	Jul	5.0	Jul†	4.3
Switzerland	– 1.0	Q2	– 1.2	– 0.1	+ 1.3	+ 0.9	Q1	+ 1.1	May	3.6	Jul†	2.4
United States	+ 2.5	Q2	+ 3.1	+ 2.4	+ 3.6	– 1.4	Jul	+ 6.3	Jul	6.2	Jul	5.8
Euro area	+ 0.4	Q2	nil	+ 0.5	+ 1.7	– 1.6	Jun	+ 0.7	Jun	8.9	Jul	8.4
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Finland	+ 1.2	Q1	– 4.9	na	na	+ 1.9	Jul	+ 2.2	Jun	7.9	Jul†	7.8
Greece	+ 4.4	Q2	+ 0.4	na	na	+ 2.8	Jun	na		na		na
Iceland	+ 3.3	Q1	na	na	na	– 0.3	2002	na		3.0	Jul†	2.3
Ireland	+ 0.5	Q1	na	na	na	– 0.8	Jun	+ 2.9	Jun	4.8	Jul	4.4
Luxembourg	+ 1.1	2002	na	na	na	– 0.8	May	– 1.6	Mar	3.7	Jul	2.8
New Zealand	+ 3.6	Q1	+ 3.3	na	na	+ 4.2	Q1	+ 5.1	Q2	4.7	Q2	5.2
Norway	– 2.0	Q2	– 0.6	na	na	– 6.4	Jun	+ 5.7	Jul	4.7	Q2	4.0
Portugal	– 1.2	Q1	+ 0.3	na	na	– 0.8	Jul	+ 1.0	Jul	6.2	Q2†	4.5

*% change on previous quarter at an annual rate. †Not seasonally adjusted. ‡New series. ††Apr-Jun; claimant count rate 3.1% in July. §EU harmonised rate 9.4% in Aug. **May-Jul.

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Prices and wages

Sep 4th 2003
From The Economist print edition

% change on year ago

	Consumer prices			The Economist poll consumer prices forecast		Producer prices			Wages/earnings		
	latest		year ago	2003	2004	latest		year ago	latest		year ago
Australia	+ 2.7	Q2	+ 2.8	+ 2.7	+ 2.3	+ 0.2	Q2	– 1.1	+ 5.5	Q2	+ 3.7
Austria	+ 1.1	Jul	+ 1.6	+ 1.3	+ 1.1	+ 1.2	Jul	– 1.0	+ 2.1	Jul	+ 2.4
Belgium	+ 1.8	Aug	+ 1.3	+ 1.3	+ 1.1	– 1.9	Jul	+ 0.5	+ 1.7	Q2	+ 2.6
Britain	+ 3.1	Jul	+ 1.5	+ 2.7	+ 2.4	+ 1.4	Jul	+ 0.3	+ 3.1	Jun	+ 3.9
Canada	+ 2.2	Jul	+ 2.1	+ 2.8	+ 1.9	– 1.6	Jul	– 0.2	+ 3.8	Jun	+ 2.9
Denmark	+ 1.9	Jul	+ 2.2	+ 2.2	+ 1.8	– 0.1	Jul	– 0.9	+ 3.9	Q1	+ 4.0
France	+ 1.9	Jul	+ 1.6	+ 1.8	+ 1.3	+ 0.9	Jun	– 1.4	+ 2.7	Q2	+ 3.9
Germany	+ 1.2	Aug	+ 1.2	+ 0.9	+ 0.6	+ 0.4	Jul	– 0.8	+ 1.8	Jun	+ 3.0
Italy	+ 2.8	Aug	+ 2.4	+ 2.5	+ 1.9	+ 1.3	Jul	+ 0.4	+ 2.1	Jul	+ 2.2
Japan	– 0.2	Jul	– 0.8	– 0.4	– 0.3	– 0.7	Jul	– 2.1	+ 2.8	Jul	– 5.1
Netherlands	+ 2.2	Jun	+ 3.4	+ 2.3	+ 1.8	+ 1.9	Jul	– 0.3	+ 2.0	Jul	+ 3.4
Spain	+ 2.8	Jul	+ 3.4	+ 3.0	+ 2.5	+ 1.1	Jul	+ 0.4	+ 4.9	Q1	+ 4.0
Sweden	+ 1.8	Jul	+ 2.2	+ 2.2	+ 1.6	– 1.5	Jul	– 0.8	+ 3.3	Jun	+ 3.1
Switzerland	+ 0.5	Aug	+ 0.5	+ 0.6	+ 0.6	– 0.7	Jul	– 1.6	+ 1.8	2002	+ 2.5
United States	+ 2.1	Jul	+ 1.5	+ 2.2	+ 1.3	+ 3.0	Jul	– 1.2	+ 3.1	Jul	+ 2.9
Euro area	+ 2.1	Aug	+ 2.1	+ 1.8	+ 1.3	+ 1.3	Jul	– 0.3	+ 3.0	Q1	+ 3.3
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*										
Finland	+ 0.4	Jul	+ 1.8	na	na	– 2.6	Jul	– 1.3	+ 4.3	Q2	+ 3.9
Greece	+ 3.6	Jul	+ 3.3	na	na	+ 2.9	Jul	+ 0.9	na		na
Iceland	+ 2.0	Aug	+ 3.2	na	na	+ 3.0	Sep	+ 6.2	+ 5.7	Jul	+ 6.6
Ireland	+ 3.1	Jul	+ 4.3	na	na	– 8.2	Jul	– 3.8	+ 7.1	Q1	+ 6.9
Luxembourg	+ 1.6	Jul	+ 2.0	na	na	+ 2.1	Jun	– 1.3	– 2.8	May	+ 0.8
New Zealand	+ 1.5	Q2	+ 2.8	na	na	– 2.0	Q2	+ 1.5	+ 2.3	Q2	+ 2.1
Norway	+ 1.5	Jul	+ 1.6	na	na	+ 6.3	Jul	– 9.4	+ 5.3	Q1	+ 4.6
Portugal	+ 2.9	Jul	+ 3.4	na	na	– 0.4	Jul	+ 0.5	nil	Jun	+ 0.5

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Economic forecasts

Sep 4th 2003
From The Economist print edition

The Economist poll of forecasters, September averages (previous month's, if changed)

	Real GDP, % change Low/high range		Real GDP, % change average		Consumer prices % increase		Current account % of GDP	
	2003	2004	2003	2004	2003	2004	2003	2004
Australia	2.5/3.5	3.0/4.4	2.8	3.5	2.7	2.3	-5.1	-4.6
Austria	nil/0.7	0.8/2.2	0.5	1.4 (1.3)	1.3 (1.2)	1.1	0.2	0.1
Belgium	0.3/1.0	1.0/2.0	0.7	1.6	1.3	1.1	4.7 (4.6)	4.7 (4.6)
Britain	1.6/2.2	1.7/3.2	1.8	2.4	2.7	2.4	-1.1	-1.3
Canada	1.9/2.8	2.4/3.7	2.2	3.0 (2.9)	2.8	1.9	1.7 (1.8)	1.6
Denmark	0.7/1.8	1.6/2.5	1.1	2.1	2.2	1.8	2.6	2.4 (2.5)
France	0.4/1.1	1.3/3.1	0.7 (0.8)	1.9	1.8	1.3	1.4	1.3
Germany	-0.3/0.3	0.7/2.1	nil	1.3 (1.2)	0.9	0.6 (0.5)	2.0 (2.1)	1.8 (1.9)
Italy	0.3/0.8	0.8/2.5	0.5	1.6 (1.5)	2.5 (2.4)	1.9	-0.5	-0.4
Japan	0.2/2.0	-0.3/3.0	1.5 (0.9)	1.3 (0.9)	-0.4	-0.3 (-0.4)	2.6 (2.5)	2.8 (2.7)
Netherlands	-0.8/0.3	0.5/2.8	-0.2	1.4 (1.2)	2.3	1.8 (1.7)	2.2	2.4
Spain	1.6/2.2	2.1/3.5	1.9	2.6	3.0	2.5	-2.4	-2.3
Sweden	0.9/1.8	1.7/2.6	1.5 (1.4)	2.2	2.2	1.6	3.6 (3.5)	3.4
Switzerland	-0.6/0.9	0.5/2.2	-0.1	1.3	0.6 (0.7)	0.6	10.7(10.8)	10.6
United States	1.9/2.6	2.2/4.3	2.4 (2.3)	3.6 (3.4)	2.2 (2.1)	1.3	-5.2(-5.3)	-5.5 (-5.4)
Euro area	0.3/0.8	1.2/2.6	0.5 (0.6)	1.7	1.8	1.3	0.6	0.5

Sources: ABN Amro, Deutsche Bank, Economist Intelligence Unit, Goldman Sachs, HSBC Securities, KBC Bank, Merrill Lynch, J.P. Morgan Chase, Morgan Stanley, Nordea, Decision Economics, BNP Paribas, Royal Bank of Canada, Citigroup, Scotiabank, UBS

Every month *The Economist* calculates the average of a group of forecasters' predictions for economic growth, inflation and current-account balances for 15 countries and for the euro area. The table also shows the highest and lowest projections for growth. The previous month's figures, where different, are shown in brackets. Our panel has become rather more optimistic about the outlook for Japan, raising its growth forecast to 1.5% in 2003 and 1.3% in 2004. In August it was predicting growth of only 0.9% a year. However, Japanese price deflation is expected to continue in both 2003 and 2004. The panel is also expecting faster growth in America, where GDP is now projected to increase by 2.4% this year and by 3.6% in 2004. It expects America's current-account deficit to hit 5.5% of GDP in 2004. The panel has shaved its forecast for euro-area growth to 0.5% in 2003.

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Money and interest rates

Sep 4th 2003
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	Money supply* % change on year ago			Interest rates % p.a. (Sep 3rd 2003)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	+ 9.5	+13.5	Jul	4.86	4.86	5.08	5.66	5.48	6.34
Britain	+ 8.1	+ 7.5	Jul	3.63	3.94	4.28	4.75	4.47	5.81
Canada	+ 9.4	+ 6.9	Jul	2.69	2.97	3.25	4.97	4.88	6.54
Denmark	+ 8.7	+ 9.8	Jul	2.30	3.50	3.07	4.51	4.64	5.67
Japan	+ 5.0	+ 1.8	Jul	0.01	0.02	0.25	1.63	1.17	1.73
Sweden	+ 3.4	+ 5.1	Jul	2.70	4.18	3.37	4.77	4.94	3.95
Switzerland	+23.7	+ 9.1	Jul	0.27	0.73	0.19	2.88	2.77	3.18
United States	+ 6.9	+ 8.6	Jul	1.04	1.73	2.01	4.60	3.95	6.16
Euro area†	+11.5	+ 8.5	Jul	2.16	3.33	2.70	4.32	4.37	4.34

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. † Germany for bonds. Benchmarks: US 30-year 5.35%, Japan No.253 1.62%. Central bank rates: US fed funds 1.00%, ECB refinancing 2.00%, BOJ overnight call 0.001%, BOE repo 3.5%. Sources: Commerzbank, Danske Bank, J.P. Morgan Chase, Royal Bank of Canada, Stockholmsbörsen, UBS, Global Insight, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

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The Economist commodity price index

Sep 4th 2003
From The Economist print edition

1995=100

	Aug 26th	Sep 2nd*	% change on one month	% change on one year
Dollar index				
All items	79.8	80.3	+ 3.5	+ 8.9
Food	79.1	79.8	+ 5.1	+ 1.9
Industrials				
All	80.9	81.1	+ 1.5	+19.8
Nfa†	85.6	86.1	+ 5.5	+22.0
Metals	76.9	76.9	– 2.1	+17.8
Sterling index				
All items	80.2	80.6	+ 5.9	+ 8.3
Euro index				
All items	96.5	97.3	+ 8.1	– 0.1
Yen index				
All items	99.8	99.4	+ 0.3	+ 8.1
Gold				
$ per oz	362.45	373.25	+ 6.8	+18.9
West Texas Intermediate				
$ per barrel	31.91	29.58	– 8.3	+ 6.5

* Provisional. † Non-food agriculturals.

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Stockmarkets

Sep 4th 2003
From The Economist print edition

Market indices

	Sep 3rd	2003 high	2003 low	% change on one week	% change on record high	% change on Dec 31st 2002 in local currency	% change on Dec 31st 2002 in $ terms
Australia (All Ordinaries)	3,219.2	3,223.9	2,673.3	+ 1.3	- 6.4	+ 8.2	+23.0
Austria (ATX)	1,377.7	1,377.7	1,120.2	+ 1.4	-20.7	+19.8	+23.6
Belgium (Bel 20)	2,107.9	2,116.3	1,426.6	+ 0.8	-42.7	+ 4.1	+ 7.4
Britain (FTSE 100)	4,262.1	4,272.1	3,287.0	+ 1.3	-38.5	+ 8.2	+ 5.5
Canada (Toronto Composite)	7,580.4	7,580.4	6,228.6	+ 1.1	-33.4	+14.6	+30.7
Denmark (KBX)	217.5	217.5	145.0	+ 5.1	-27.9	+30.8	+35.0
France (SBF 250)	2,318.0	2,318.0	1,630.1	+ 4.2	-47.2	+12.9	+16.5
(CAC 40)	3,422.8	3,422.8	2,403.0	+ 4.4	-50.6	+11.7	+15.2
Germany (DAX)	3,647.5	3,647.5	2,203.0	+ 4.7	-54.8	+26.1	+30.1
Italy (BCI)	1,206.6	1,206.6	959.4	+ 2.3	-44.7	+10.5	+14.0
Japan (Nikkei 225)	10,715.7	10,715.7	7,607.9	+ 3.9	-72.5	+24.9	+27.7
(Topix)	1,033.3	1,033.3	770.6	+ 3.3	-64.2	+22.5	+25.3
Netherlands (AEX)	341.4	341.4	218.4	+ 3.1	-51.3	+ 5.8	+ 9.1
Spain (Madrid SE)	768.6	768.6	576.8	+ 2.3	-32.9	+21.2	+25.1
Sweden (Affarsvarlden Gen)	179.7	179.7	127.8	+ 4.1	-55.1	+23.8	+28.1
Switzerland (Swiss Market)	5,291.0	5,291.0	3,675.4	+ 2.1	-37.1	+14.3	+11.5
United States (DJIA)	9,568.5	9,568.5	7,524.1	+ 2.5	-18.4	+14.7	+14.7
(S&P 500)	1,026.3	1,026.3	800.7	+ 3.0	-32.8	+16.6	+16.6
(NASDAQ Comp)	1,852.9	1,852.9	1,271.5	+ 4.0	-63.3	+38.7	+38.7
Europe (FTSE Eurotop 300)*	926.5	926.5	682.7	+ 2.7	-45.7	+ 8.1	+11.5
Euro area (FTSE Ebloc 100)*	800.8	800.8	565.7	+ 3.4	-48.4	+11.5	+15.0
World (MSCI)†	922.9	922.9	710.8	+ 2.9	-36.3	na	+16.5
World bond market (Citigroup)‡	536.0	583.9	518.6	- 0.5	- 8.2	na	+ 2.0

*In euro terms. †Morgan Stanley Capital International index includes individual markets listed above plus eight others, in dollar terms.
‡Citigroup World Government Bond Index, total return, in $ terms.

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Trade, exchange rates and budgets

Sep 4th 2003
From The Economist print edition

	Trade balance*, $bn latest 12 months		Current account $bn latest 12 mths		The Economist poll % of GDP, forecast 2003	2004	Exchange rate trade-weighted† 1990=100 Sep 3rd	year ago	Currency units per $ Sep 3rd	year ago	per £	per euro	per ¥100	Budget balance % of GDP 2003‡
Australia	− 11.8	Jul	− 24.4	Q2	− 5.1	− 4.6	81.3	72.2	1.56	1.84	2.45	1.69	1.35	0.2
Austria	+ 0.7	May	+ 2.0	Jun	+ 0.2	+ 0.1	103.1§	100.8	0.92	1.01	1.45	–	0.80	-1.3
Belgium	+ 18.6	May	+ 10.7	Mar	+ 4.7	+ 4.7	103.3§	100.0	0.92	1.01	1.45	–	0.80	nil
Britain	− 75.7	Jun	− 5.8	Q1	− 1.1	− 1.3	99.5	106.9	0.64	0.64	–	0.69	0.55	-1.9
Canada	+ 35.9	Jun	+ 14.7	Q2	+ 1.7	+ 1.6	84.8	75.8	1.39	1.56	2.17	1.50	1.19	1.1
Denmark	+ 9.8	Jun	+ 5.9	Jun	+ 2.6	+ 2.4	105.5	103.4	6.86	7.47	10.8	7.43	5.91	1.6
France	+ 6.2	Jun	+ 23.2	Jun	+ 1.4	+ 1.3	106.8§	102.9	0.92	1.01	1.45	–	0.80	-3.6
Germany	+131.1	Jun	+ 54.4	Jun	+ 2.0	+ 1.8	104.5§	99.8	0.92	1.01	1.45	–	0.80	-3.7
Italy	+ 2.1	Jun	− 16.6	Jun	− 0.5	− 0.4	76.1§	73.3	0.92	1.01	1.45	–	0.80	-2.4
Japan	+ 94.6	Jun	+112.6	Jun	+ 2.6	+ 2.8	134.0	136.6	116	118	182	126	–	-7.7
Netherlands	+ 30.1	Jun	+ 2.9	Q1	+ 2.2	+ 2.4	102.8§	99.0	0.92	1.01	1.45	–	0.80	-1.6
Spain	− 45.5	May	− 19.6	May	− 2.4	− 2.3	77.3§	75.0	0.92	1.01	1.45	–	0.80	-0.4
Sweden	+ 16.3	Jul	+ 11.1	Q2	+ 3.6	+ 3.4	80.1	76.1	8.42	9.37	13.2	9.11	7.26	0.7
Switzerland	+ 5.8	Jul	+ 32.7	Q1	+10.7	+10.6	111.5	114.5	1.42	1.47	2.22	1.53	1.22	na
United States	−529.6	Jun	−510.2	Q1	− 5.2	− 5.5	105.3	112.5	–	–	1.57	1.08	0.86	-4.6
Euro area	+ 80.4	Jun	+ 42.9	Jun	+ 0.6	+ 0.5	87.4	82.0	0.92	1.01	1.45	–	0.80	-2.5
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*													
Finland	+ 13.7	Jun	+ 10.3	Jun	na	na	82.2§	78.9	0.92	1.01	1.45	–	0.80	3.1
Greece	− 24.0	Jun	− 11.5	Jun	na	na	59.7§	58.0	0.92	1.01	1.45	–	0.80	-1.0
Iceland	nil	Jul	nil	Q1	na	na	98.1**	89.0	81.7	88.1	128	88.4	70.4	nil
Ireland	+ 37.4	Jun	− 2.1	Q1	na	na	95.2§	89.3	0.92	1.01	1.45	–	0.80	-0.8
Luxembourg	− 3.3	Jun	+ 1.8	Q1	na	na	103.3§	100.0	0.92	1.01	1.45	–	0.80	0.2
New Zealand	− 1.6	Jul	− 1.4	Q1	na	na	97.7	84.5	1.76	2.14	2.76	1.91	1.52	0.8
Norway	+ 27.4	Jul	+ 25.8	May	na	na	96.5	105.2	7.60	7.46	11.9	8.22	6.55	11.3
Portugal	− 12.6	May	− 8.5	May	na	na	92.9**	90.0	0.92	1.01	1.45	–	0.80	-3.2

*Merchandise. Australia, Britain, France, Canada, Japan and United States imports fob, exports fob. All others cif/fob. †Bank of England except §IMF, June average. ‡OECD forecast. **IMF, April average.

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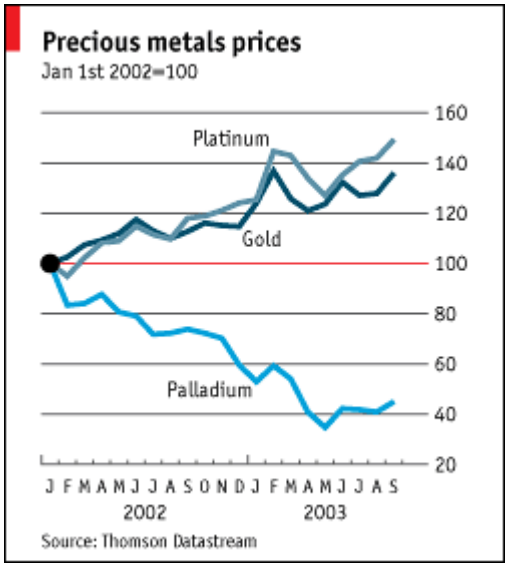
Precious metals prices

Sep 4th 2003
From The Economist print edition

Gold prices have risen by 16% since April, but are below a six-year high reached in February. Platinum has climbed to a 23-year high, but palladium is now 82% below its all-time peak.



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Overview

Sep 4th 2003
From The Economist print edition

Brazil's economy sank deeper into recession. GDP fell by 1.6% during the second quarter and by 1.3% in the year to the second quarter. High interest rates and weak domestic demand are keeping household and business spending low. Exports remained strong and Brazil posted a trade surplus of $22.9 billion in the year to August.

Venezuela's GDP fell by 9.4% in the year to the second quarter, thanks to continuing civil strife.

Thailand's industrial production rose by 10.3% in the year to July.

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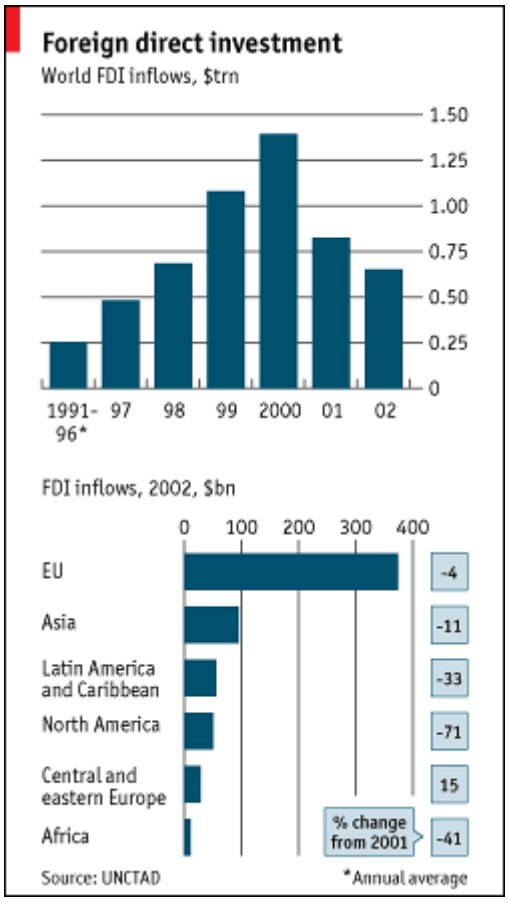
Foreign direct investment

Sep 4th 2003
From The Economist print edition

Foreign direct investment (FDI) fell again in 2002, according to the latest World Investment Report published by UNCTAD. For the second year running, North America experienced the sharpest fall in inflows, a 71% decline. The European Union saw inflows last year shrink by 4%, but this was significantly less than the 43% fall in 2001. Germany even recorded a 12% increase in FDI in 2002, although this also followed a brutal decline the previous year. Among the emerging market economies, Latin American and Caribbean countries attracted a third less FDI in 2002 than in 2001, and Africa's FDI reversed dramatically in 2002, after more than doubling in the previous year. Central and eastern Europe was the only bright spot: FDI there rose by 15% in 2002.



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Economy

Sep 4th 2003
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	% change on year ago						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 6.7	Q2	+16.5	Jul	+ 0.5	Jul	+20.8	Jul	+35.4	2002	356.5	Jul
Hong Kong	– 0.5	Q2	– 8.8	Q1	– 4.0	Jul	– 6.7	Jul	+18.4	Q1	112.6	Jul
India	+ 4.9	Q1	+ 5.7	Jun	+ 4.2	Jul	–13.1	Jul	+ 4.7	Q1	81.2	Jul
Indonesia	+ 3.8	Q2	+18.4	Mar	+ 6.4	Aug	+25.8	Jul	+ 6.7	Q1	32.3	Jul
Malaysia	+ 4.4	Q2	+ 8.6	Jun	+ 1.0	Jul	+17.0	Jul	+ 8.5	Q1	34.0	Jul
Philippines	+ 3.2	Q2	– 1.2	Jun	+ 3.3	Jul	– 0.7	Jun	+ 2.7	May	13.0	Jul
Singapore	– 4.2	Q2	– 6.3	Jul	+ 0.3	Jul	+13.7	Jul	+23.8	Q2	87.0	Jul
South Korea	+ 1.9	Q2	+ 0.7	Jul	+ 3.0	Aug	+ 9.9	Aug	+ 4.1	Jul	132.8	Jul
Taiwan	– 0.4	Q2	+ 7.5	Jul	– 1.0	Jul	+17.1	Jul	+26.9	Q2	182.2	Jul
Thailand	+ 6.7	Q1	+10.3	Jul	+ 2.2	Aug	+ 4.8	Jul	+ 8.9	Jul	36.7	Jul
Argentina	+ 5.1	Q1	+11.9	Jul	+ 4.9	Aug	+17.2	Jul	+10.1	Q1	13.5	Jul
Brazil	– 1.3	Q2	– 2.1	Jun	+15.4	Jul	+22.9	Aug	+ 2.6	Jul	47.3	Jul
Chile	+ 2.7	Q2	– 2.9	Jul	+ 3.1	Jul	+ 2.5	Jul	– 0.8	Q2	15.4	Jul
Colombia	+ 3.8	Q1	+ 1.0	Jun	+ 7.0	Jul	– 0.3	May	– 2.1	Q1	10.0	Jul
Mexico	+ 0.2	Q2	– 1.7	Jun	+ 4.1	Jul	– 6.5	Jul	–11.5	Q2	51.7	Jul
Peru	+ 5.7	Jun	+ 3.3	Jun	+ 1.9	Aug	+ 0.4	Jun	– 1.2	Q2	9.3	Jul
Venezuela	– 9.4	Q2	–14.6	Apr	+30.4	Aug	+14.6	Q2	+ 9.5	Q1	11.9	May
Egypt	+ 3.1	2002†	+ 4.2	2002†	+ 4.0	Jun	– 7.1	Mar	+ 1.0	Q1	13.4	Jun
Israel	– 0.3	Q2	– 0.8	Jun	– 1.6	Jul	– 6.3	Jul	– 0.5	Q1	24.4	Jul
South Africa	+ 1.8	Q2	– 2.2	Jun	+ 5.2	Jul	+ 3.4	Jul	– 0.2	Q1	6.5	Jul
Turkey	+ 8.1	Q1	+11.7	Jun	+24.9	Aug	–18.1	Jun	– 4.1	Jun	28.7	Jul
Czech Republic	+ 2.2	Q1	+ 6.2	Jun	– 0.1	Jul	– 2.3	Jul	– 4.4	Q1	25.2	Jul
Hungary	+ 2.4	Q2	+ 2.8	Jun	+ 4.7	Jul	– 3.3	Jun	– 3.8	Jun	12.2	Jul
Poland	+ 2.2	Q1	+10.3	Jul	+ 0.8	Jul	–10.5	Jul	– 5.2	Jun	30.9	Jul
Russia	+ 6.8	Q1	+ 7.1	Jul	+14.0	Jul	+54.2	Jun	+36.4	Q2	63.9	Jul
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Pakistan	+ 3.6	2002†	+15.8	Nov	+ 1.4	Jul	– 1.2	Jul	+ 2.8	2002†	9.8	Jul
Saudi Arabia	+ 0.7	2002§	na		– 1.0	May	+38.6	2002§	+11.7	2002	22.8	May

*Excluding gold, except Singapore; IMF definition. †Year ending June. §Economist Intelligence Unit estimate.
Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank.

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Financial markets

Sep 4th 2003
From The Economist print edition

	Currency units			Interest rates	Stockmarkets	% change on		
	per $		per £	short-term	Sep 3rd		Dec 31st 2002	
	Sep 3rd	year ago	Sep 3rd	% p.a.		one week	in local currency	in $ terms
China	8.28	8.28	13.0	na	1,517.4	+1.6	+ 6.9	+ 6.9
Hong Kong	7.80	7.80	12.2	1.14	10,939.9§	+2.4	+ 17.4	+ 17.4
India	45.9	48.4	72.0	4.74	4,257.9	+1.2	+ 26.1	+ 31.8
Indonesia	8,465	8,870	13,288	9.13	558.2	+5.2	+ 31.4	+ 38.9
Malaysia	3.80	3.80	5.97	3.10	745.2	+0.1	+ 15.3	+ 15.3
Philippines	54.7	51.8	85.9	7.69	1,241.5	−0.1	+ 21.9	+ 18.9
Singapore	1.76	1.75	2.76	0.88	1,605.0	+0.7	+ 19.7	+ 18.1
South Korea	1,174	1,192	1,843	3.85	766.3	+1.0	+ 22.1	+ 23.3
Taiwan	34.1	34.2	53.5	1.15	5,673.2	+2.2	+ 27.4	+ 30.0
Thailand	40.8	42.2	64.1	1.29	539.9	+2.7	+ 51.4	+ 59.9
Argentina	2.98	3.64	4.67	7.56	733.8	+2.9	+ 39.8	+ 58.0
Brazil	2.95	3.14	4.64	21.83	15,633.8	+3.2	+ 38.7	+ 66.3
Chile	692	717	1,086	2.88	6,712.6	+0.6	+ 33.7	+ 39.2
Colombia	2,827	2,703	4,438	7.88	2,082.9	−0.2	+ 29.5	+ 31.3
Mexico	10.94	10.02	17.2	4.98	7,719.1	+2.9	+ 26.0	+ 20.5
Peru	3.48	3.63	5.47	2.95	1,894.3	+0.7	+ 36.1	+ 37.3
Venezuela	1,598	1,432	2,509	17.94	14,852.2	+3.6	+ 85.3	+ 60.8
Egypt	6.13	4.60	9.62	8.99	9,023.2	+1.1	+ 68.0	+ 26.9
Israel	4.44	4.73	6.97	3.85	430.1	+4.3	+ 29.4	+ 38.3
South Africa	7.3	10.7	11.4	10.50	9,332.0	+2.1	+ 0.6	+ 18.8
Turkey	1,392,500	1,628,500	2,185,947	31.00	11,671.8	+0.4	+ 12.6	+ 34.2
Czech Republic	29.9	30.5	47.0	2.07	648.5	+5.6	+ 40.8	+ 41.4
Hungary	237	247	371	9.51	9,241.2	+4.7	+ 18.5	+ 12.6
Poland	4.02	4.13	6.31	5.14	21,774.7	+3.8	+ 51.6	+ 44.5
Russia	30.6	31.6	48.0	16.00	542.6‡	+5.0	+ 44.7	+ 51.1
EMF (MSCI)*	1.00	1.00	1.57	na	381.6	+4.1	na	+ 30.6
EMBI+†	1.00	1.00	1.57	na	270.6	+0.8	na	+ 18.2

*Emerging Mkts Free. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡In $ terms. §Sep 2nd.
Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank.

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